

INSIDE DOPE

by GEORGE F. TAUBENECK

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Add Women Stories
Gags of the Week
Definition of the Week
Philosophy of the Week
Submitted by Ranco's Eddie Graff
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Stories of the Week

Herman Goldberg's youngest child had trouble with an arithmetic assignment. Doughty Herman obliged by solving the problems.

Next evening at dinner he asked how the teacher had marked the homework.

"Three problems were wrong, Daddy, but don't you worry. Teacher told us those problems really were too hard for fourth grade."

"Have you ever belonged to an organization that is trying to overthrow the government in Washington?" a job applicant was asked.

"Yes, sir. The Republican Party."

From a collegiate magazine, the *Auburn Plainman*, we quote a cutie.

Physics Prof.: "If you were at the top of a tall building how would you measure its height, using a barometer?"

Student: "I would tie a rope to the barometer, lower it to the ground, and then measure the rope."

Physics Prof.: "Hmmm."

Dale Mericle reports that in New Orleans an outdoor display sign on a bar-and-grille lifts tourists' eyebrows. It proclaims:

"Hell's Here. Air Conditioned."

Add Women Stories

"Two middle-aged women who rented a summer cottage sight unseen were dismayed by its isolation. After a few frightened nights they paid an old man, who did odd jobs, to sleep in a shed near their door every night.

"Following summer they rented the cottage again and assumed they could hire the same old man. At his cottage they found a sign posted:

"Wood supplied, odd jobs done, nervous wimmen slept with."—*Royal Prince Albert Hospital Magazine*, Sydney, Australia.

Gags of the Week

"Looks as if we'll have a literary election campaign. Eisenhower and Taft have each written a book, and Truman, of course, is known as a man of letters."—*Changing Times*.

"Sign on the table of Bibles in a Hollywood Blvd. bookstore: 'David and Bathsheba—you've seen the movie, now read the book.'—*ERNEST JOHNSON*.

"Few daughters nowadays get to use Mother's wedding gown—Mom is still using it."—*Pipe Dreams*.

Marking the 100th birthday of Marshall Field & Co., *Advertising Age* comments that the store starts a second century "with its faith that the customer is always right slightly dented, but still in good working condition."

Definition of the Week

Eiffel Tower: "Empire State Bldg. after taxes."

Philosophy of the Week

To trust no man is worse than trusting all men.

"Inflation is getting to the point where the things that most of us would be better off without are costing too much."—*Cincinnati Enquirer*.

"There can be no hope for a decent (Concluded on Page 6, Column 1)

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Tecumseh Adds Big Hermetics to Compressor Line

TECUMSEH, Mich. — Tecumseh Products Co. has announced a completely new line of integral horsepower hermetic compressors and condensing units for commercial and air conditioning applications.

Included in this line are compressors covering the $\frac{1}{4}$, 1, 1 $\frac{1}{2}$, and 2 hp. range. The new compressors are internally spring mounted in the same manner as the standard domestic refrigerator compressors.

Designed with two bores (1 $\frac{1}{2}$ in. and 1 $\frac{3}{4}$ in.), one stroke (1.2 in.), and using "Freon-12" and "22," these models extend the standard Tecumseh line of hermetic compressors from $\frac{1}{4}$ to 2 hp.

Compressors starting with the 1 (Concluded on Page 4, Column 5)

Carrier Advertising Campaign 'Greatest In A. C. History'

DETROIT — Launching what it hopes will be the biggest year in history for its distributor-dealer organization, Carrier Corp. concluded a nationwide series of sales meetings with a one-day session here attended by more than 200.

"The greatest advertising campaign in air conditioning history," dealers and distributors were told, is intended to spark this year's drive, which will push nationally such products as the 38B Weathermaker packaged unit with a gas heater for year-round residential air conditioning.

National advertising will be increased 30% by Carrier in 1952 with 517 advertisements in 57 different national publications reaching more than 16 million readers, stated Jack (Concluded on Page 25, Column 3)

3rd-Quarter Approval Seen For Most Bldg. Projects

WASHINGTON, D. C. — Of the 2,700 applications for second quarter materials allotments for commercial construction projects, a substantial number had to be denied because of lack of available materials, the National Production Authority announced recently.

However, virtually all applications on hand for both industrial and com- (Concluded on Back Page, Column 4)

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Dates, Places For 2 Industry Conferences Set

WASHINGTON, D. C. — Dates and locations for the next two Refrigeration and Air Conditioning Educational exhibits and conferences have been announced by the Refrigeration Equipment Manufacturers Association, sponsor of the educational exhibits.

The 9th All-Industry Educational Exhibit and Conference will be held in Convention Hall, Philadelphia. Dates are May 2, 3, and 4, 1952.

The 10th conference in the series will be held in Miami, Fla., on Dec. 5, 6, and 7, 1952. Exhibits will be housed in the Miami Municipal Auditorium.

The Refrigeration Service Engineers Society has announced officially that its annual meeting will be held in Miami Dec. 5 to 8 during the conference, and the Refrigeration and Air Conditioning Contractors Association has indicated that it will shift its previously announced annual meeting dates and location (Nov. 21 to 23 at Miami Beach) to coincide with the Miami conference.

A third conference will be held in the spring of 1953 on the West Coast.

Posters and folders advertising the Philadelphia conference are being sent to wholesalers and contractors throughout the country by REMA's public relations department.

It is expected that nearly 100 man- (Concluded on Page 25, Column 1)

Servel Plans Room Cooler Line In '53

EVANSVILLE, Ind. — Plans for making and marketing room air conditioners were announced by W. Paul Jones, president of Servel, Inc., who said the first of the units would be ready early in 1953.

The new air conditioners will be self-contained, electrically-operated units with capacity up to $\frac{1}{4}$ or 1 hp. They will provide complete summer comfort for single rooms by cooling, dehumidifying, filtering, and circulating the air.

Distribution of the room units will be handled by both Servel appliance distributors and Servel air conditioning distributors, Jones said. Servel appliance distributors now handle Servel household refrigerators and Servel water heaters.

"This new product will provide both types of Servel distributors with an important new sales builder," (Concluded on Page 4, Column 3)

NEMA Reports Jan. Refrigerator Sales Jump 30%

NEW YORK CITY — January refrigerator sales rose 30% over December, 16 manufacturers reported to the National Electrical Manufacturers Association here recently, though they were still 44% under those of the first month in 1951.

January sales numbered 275,297 units, of which 15,038 were sold outside the United States. This compared with 211,442 in December and 488,607 in January, 1951.

Compared by size classifications with sales of a year previous, figures showed the 8-cu. ft. models suffered the worst. Their sales dropped from 181,040 units to 63,683. Sales in all but two other classifications were about halved.

The 11-cu. ft. and over classification was the only one to show a gain. This group rose from 43,957 units in January, 1951 to 47,955 units in the first month of 1952.

The 9-cu. ft. group made the smallest comparative drop. Sales were down from 74,478 to 65,775.

G-E Div. Reveals Long Range Plans For Appliance Park

LOUISVILLE, Ky. — General Electric expects to spend \$50 million more for materials and parts for its major appliance manufacturing in 1960 than it did last year, Clarence H. Linder, general manager of G-E's major appliance division, declared recently.

Manufacture of the company's major appliances now produced at a number of widely scattered plants, eventually will be concentrated at the multi-million dollar Appliance (Concluded on Back Page, Column 1)

Another Year of Controls Voted by Senate Group

WASHINGTON, D. C. — Extension of present price, wage, and rent controls for a year beyond June 30 was voted last week by the Senate Banking Committee.

President Truman, however, had requested that the Defense Production Act be continued for another two years after the June 30 expiration date.

The House Banking Committee, also slated to start hearings last (Concluded on Back Page, Column 4)

First \$12,500 Homes with Year-Round Air Conditioning Opened In Dallas

DALLAS — First units in a large-scale, low-cost housing development offering General Electric year-round air conditioning as a sales feature were unveiled here recently.

Built by the combined firms of Laughlin & Silver and Lewis & Lambirth, the six-room houses will sell for \$12,500. There will eventually be 210 houses in the project, which is believed to be the first in the low-price class to boast complete year-round air conditioning, G-E said.

Of contemporary design, each of the homes will be equipped with General Electric's new packaged summer air conditioner (FE-20) designed especially for residential use. The houses will also have a G-E gas-

fired warm-air furnace (LG-20) for winter heating. The two units are tied together by a common duct system and heating and cooling thermostats control the temperature the year round.

The combined system cost \$1,500 installed in the Dallas homes. The G-E residential air conditioner may be installed in new six-room houses employing warm air heating for approximately \$1,000, and in old homes with warm air heating for slightly more, G-E said. The unit is offered in 2 and 3-hp. models.

It provides cooling, heating, humidification, and dehumidification as needed. For between-season opera- (Concluded on Back Page, Column 1)

Consumer Goods Mfrs. Get Big Metals Increase

3rd-Quarter Allotment Of Copper, Aluminum, And Steel Up 10 to 20%

WASHINGTON, D. C. — Manufacturers of consumer durable goods will be allotted for the third quarter considerably more steel, copper, and aluminum than they were allowed during the first and second quarters, the Defense Production Administration has announced.

They will be permitted to use 65% of the steel, 40% of the copper, and 50% of the aluminum that they did in the pre-Korean base period. This compares with 50% of the steel and 30% of the copper and aluminum which they were allotted in the second quarter.

The increased allotments to consumers durables manufacturers are made possible by reducing allotments to defense projects under the "stretch-out" program. Actually, total supplies of steel and copper are expected to be lower in the third quarter than in the second. The aluminum supply will be about 10% greater in the third quarter.

In order to keep mills operating (Concluded on Page 4, Column 4)

'Smallest' Ice Maker Introduced by York

YORK, Pa. — An automatic ice maker said to be the smallest commercial type ever developed has been placed in production by York Corp., according to President Stewart E. Lauer.

This machine, to be known as the "York-FlakIce Automatic Ice Maker," model DER-2, is designed to produce up to 300 lbs. of ice in small, clear fragments per day without the use of an auxiliary crusher. It is scheduled to sell at \$599.50, f.o.b. York, Pa.

Lauer pointed out that this new machine was designed primarily to meet the increasing demands for (Concluded on Page 4, Column 1)

Aluminum, Some Forms of Steel May Be Decontrolled

WASHINGTON, D. C. — Prospects for decontrol of steel, aluminum, and copper, Manly Fleischmann, chief of the Defense Production Agency, told the House small business subcommittee recently, are about like this:

STEEL: Controls will be relaxed on nearly all forms of carbon steel by the fourth quarter or the first quarter of 1953. Priority ratings will be retained only for military and atomic energy programs. Excluded from the forms of steel to be decontrolled are seamless tubing, heavy plate, bar, possible large diameter pipe, alloy, and stainless steel. These will remain under Controlled Materials Plan allotments.

ALUMINUM: Controls will be re- (Concluded on Back Page, Column 3)

RCA To Introduce New Dehumidifier

CAMDEN, N. J. — RCA Victor Div., Radio Corp. of America, will supplement its new line of room air conditioners with an RCA electric dehumidifier, it was announced by Robert A. Seidel, RCA Victor vice president.

The new product (model ACD-28) will carry a suggested list price of \$139.50, and initial shipments will go forward to distributors during the last two weeks in April, he said.

The dehumidifier will come under the jurisdiction of the RCA Victor personnel who handle the company's room air conditioners with W. F. Carolan in charge of sales. Advertising and promotion plans will be announced later. The colors of the dehumidifier, a combination of arctic tan and polar beige, are the same as the RCA room air conditioners.

Designed principally for home use, (Concluded on Page 25, Column 5)

Former Senator Describes Reg. W As Inflationary and Discriminatory

WASHINGTON, D. C.—Regulation W discriminates against a large portion of the buying public and should therefore be abolished immediately, former Senator Francis J. Myers told the Senate Banking and Currency Committee.

He appeared as counsel for the National Foundation for Consumer Credit, a non-profit research organization financed by manufacturers, retailers, distributors, bankers, and other leading institutions.

Myers assailed the credit controls as "shackles on the freedom of the little people." He declared that the regulation is not anti-inflationary but inflationary, creating enormous commercial debt, that it is damaging the "E" Bond program of the Treasury, and that it is depleting the tax income of the country.

"It seems paradoxical," he asserted, "that the government should find it appropriate to apply a regulation which levies an unequal and inequitable impact upon the segment of the people least able financially to bear its brunt, and most susceptible to its unfortunate impact upon their individual rights and freedoms."

"Millions habitually buy on open charge accounts. Others make it a practice to buy only for cash. Many others, including the working people generally, have equipped their homes, bought automobiles, and provided for their own higher standard of living by the instalment method."

"This regulation leaves two of the

three groups free of its control . . . Since those regulated naturally fall into the less well-to-do classes it is the little people of the country who bear the brunt of the regulation.

"Yet no one ever has advanced the thought that the purchase of a refrigerator by a wealthy family is more desirable to the economy than its procurement on instalment terms by a less affluent worker and his wife."

Myers charged that the regulation "kills a basic freedom of the American people, the right to make a contract with a fellow citizen."

"It goes further. Regulation W requires a borrower to fill out official government forms . . . the reasons for his transaction, which remain on public file."

Continuing his attack on the controls, Myers declared:

"An instalment buyer or borrower may be unable to carry out terms agreed upon. Is he free to renegotiate this contract? He is not."

"To do it, this 'free' American must sign a 'statement of changed conditions,' in reality a pauper's oath, a specified legal form, telling how the husband is out of work, how the wife is in the hospital; that a child is sick . . . a public record of private family information that Americans do not care to divulge, not even to their Federal government."

"Regulation W invades the privacy of the American home. In the course of its enforcement, 'investigators' go

into private homes at all hours . . . (They) demand an explanation—'What use was made of money borrowed?'; 'Was it used as the husband said it would be?'

"The same invasion of privacy and the home accompanies investigation as to whether stores have violated down payment and contract term provisions of the regulation."

Stockholders Alter Name To Worthington Corp.

WILMINGTON, Del.—Stockholders of Worthington Pump and Machinery Corp. at their annual meeting here recently re-elected their present board of directors and voted to change the company's name to Worthington Corp.

H. C. Ramsey, president, stated that no corporation policies or practices will be affected in any way by the name change.

He pointed out that while Worthington is the leading manufacturer of pumps, nevertheless a major portion of its sales volume is in such varied products as air and gas compressors, diesel and gas engines, air conditioning and refrigeration equipment, steam power generation apparatus, electric motors, generators, and switch gear, V-belt transmission drives, construction equipment, and liquid meters.

He said Worthington has a ninety million dollar backlog and bookings continue at a satisfactory rate. The company's billings for 1952 are expected to be substantially in excess of last year's \$119,780,372.



CAUGHT HARD AT WORK on industry credit problems are the members of the Refrigeration Equipment Manufacturers Association Credit Group, who met recently in Detroit. Starting at lower left from front to rear are H. H. Fouts of REMA, credit group secretary; J. F. Parkin of Mueller Brass Co.; H. W. Magnus of Mario Coil Co.; and Weldon Canfield of Sparlan Valve Co. From left to right across the rear table are Dorothy Manke and Eunice Graham of Kelvinox Div., Nash-Kelvinator Corp.; Dorothy Wetherhall of Ranco Inc.; R. F. Letz of Virginia Smelting Co., chairman; J. A. Hynes of Wolverine Tube Div., Columet & Hecla Consolidated Copper Co., vice chairman; Arthur C. Sievers of Alco Valve Co.; Edward T. Polsten of Bush Mfg. Co.; and L. J. Edmann of Ansul Chemical Co. From lower right, front to rear are H. C. Craig of Detroit Lubricator Co.; O. L. Rose of Dale Refrigerating Co.; Irene Jarfas of Copeland Refrigeration Co.; B. F. Peterson of A-P Controls Corp.; and A. F. Lateuleva of Serval, Inc.

NPA Can Give Extra Metal 1953 Chicago Electric To All Hardship Cases Show Set for May 11-14

WASHINGTON, D. C.—Sufficient controlled materials will be made available under the Small Business Hardship Account to help all small manufacturers of civilian-type products who face failure or prolonged shutdown because of reduced allotments and inability to obtain defense contracts.

Henry H. Fowler, administrator of the National Production Authority said this account will have enough controlled materials to cover the screened requirements of all hardship applications received by March 13, the deadline date. Companies filing for assistance after March 13 may receive smaller supplemental allotments than those who filed on or before the deadline, he added.

Application for hardship allotments should be submitted to either the NPA industry division in Washington, D. C. or the NPA field office which made the most recent allotment of controlled materials to the applicant.

To qualify for a supplemental allotment from this account, the applicant must meet the following:

1. The firm must be classified as small business.
2. It must be primarily producing civilian-type products.
3. The firm must be faced with hardship (probable failure) or prolonged shutdown because it has received insufficient allotments of controlled materials for the calendar quarter for which the application is being submitted.
4. It is unable to continue normal production by using substitute materials.
5. The plant facilities are not suitable for conversion.

The office to which the application is turned in will test it against these criteria and then recommend quantities of controlled materials to help the applicant attain minimum operations.

The recommendations will go to a Small Business Hardship Panel in Washington, D. C. The panel will then screen the allotments proposed and recommend to its chairman the action to be taken. James L. Kelly, assistant administrator of NPA for small business, is the chairman.

Noble Accepts NPA Post

CHICAGO—Max Noble, assistant sales manager of Fresh'nd-Aire Co., a division of Cory Corp., has taken an indefinite leave of absence to accept a post with the Electric Fan section, Consumer Durable Goods Div., National Production Authority.

CHICAGO—The second Chicago Electrical Industry Show, sponsored by the Electric Association, will be held in the Exhibition Hall of the Conrad Hilton hotel May 11 through 14, 1953, it was announced here by John McC. Price of Allen-Bradley Co., chairman of the show committee.

Because of the success of Chicago's first industry show at the Sherman hotel in April, 1951, which drew an attendance of more than 8,000 persons, the board of directors of the Electric Association has approved plans for a similar show every other year, according to Price.

In announcing 1953 show dates, he said that invitations to exhibit and space contracts will be mailed to prospective exhibitors on or about Sept. 1.

In addition to all manufacturers of electrical apparatus, electrical devices, supplies and material, as are commonly used by the electrical contractor and the industry trade, the following new exhibit classifications have been approved: industrial lighting fixture manufacturers, motor repair concerns, manufacturers' agents, manufacturers of industrial fans and ventilating equipment. As in 1951, however, participation as an exhibitor will be limited to members.

Refrigeration Pioneer A. P. Anderson Dies

GOSHEN, Ind.—August P. Anderson, who held many patents on compressors, and regulating and controlling devices for many early refrigerating systems, died here recently at the age of 77.

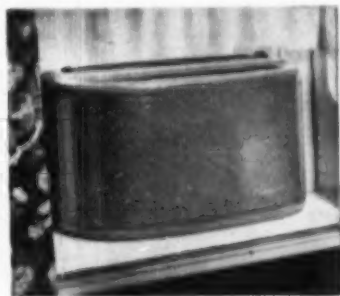
Anderson retired from the design department at Penn Controls, Inc. in 1947 after a long life in the industry that began at the turn of the century with Chicago ice manufacturers.

Anderson did designing and development work in the early days of the Peerless Ice Machine Co. of Chicago, the Coldmaker of Toledo, and the Excelsior Co. of Chicago.

In 1918 he was granted a patent on a self-contained refrigerator and in 1922 was granted the original patent on a two-temperature refrigerator. About 1932 he began development work on room coolers.

After a short period with Automatic Products Co. of Milwaukee, he joined Penn Controls, Inc. in 1941. At these plants he designed regulating valves.

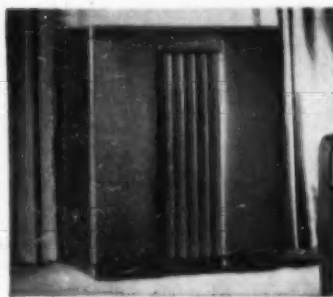
Even after his retirement, he designed and patented new type compressors and refrigerating equipment.



4

- Four and two make six—six specific-capacity room air conditioners. Six good reasons for you to feature and sell Carrier. You'll never miss a sale because you're unable to match unit to job!
- You'll be set up to handle them all with the complete Carrier line. There are four window styles: the new and beautiful, low-priced $\frac{1}{2}$ hp., plus the large-capacity $\frac{1}{2}$, $\frac{3}{4}$, and 1 hp. sizes. Two handsome consoles: 1 and 1 $\frac{1}{2}$ hp.
- Another big Carrier selling feature is the 1952 Buyer's Guide. It shows your prospects what a good room air conditioner should do—how Carrier does it best, 18 points in all. Every one important to the buyer. It's one of the most effective selling tools you'll ever use!
- Prospects will be looking for the six-model Carrier line, the Carrier Buyer's Guide, and the 18 checkpoints—because all are featured in Carrier's big-space, national advertising in magazines like *Time*, *Newsweek*, *Business Week*. And—they'll be looking for the dealer who has them all. Be ready!

Write Carrier Corporation, Syracuse, New York.



2

Carrier

AIR CONDITIONING REFRIGERATION

gives you 6 that sell!

A FINISHED PRODUCT IS ONLY HALF THE JOB
LET'S COMPLETE THE JOB—

PUT THE SELL IN AIR CONDITIONING—
in the

AIR CONDITIONING MERCHANDISING
AND APPLICATIONS ISSUE

April 21. Advertising closes April 11

AIR CONDITIONING & REFRIGERATION NEWS
450 West Fort Street, Detroit 26, Michigan

For price, features, beauty, saleability...

"This is it"

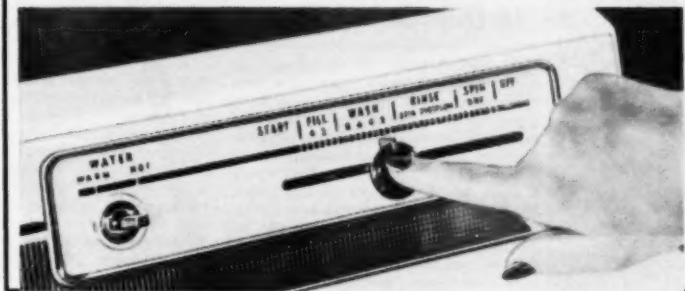
say dealers everywhere

New NORGE Time-Line Automatic Washer selling like hot cakes!

Is it really that good? Brother, you don't know the half of it! This new Norge is the once-in-a-lifetime miracle that dealers dream about. An appliance so perfectly designed and engineered—so appealingly priced—so packed with features women want—it's proving to be a sales "natural".

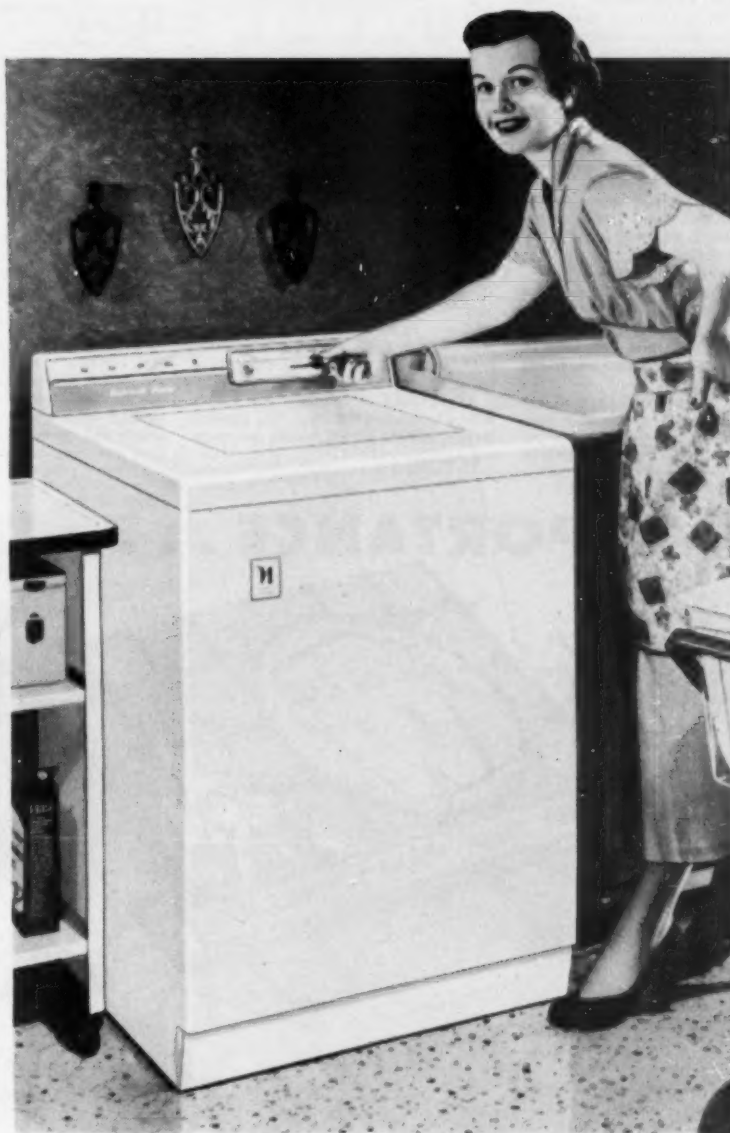
Yes, sir . . . this is *really* it! Why wait? You won't know what you're missing if you don't sell Norge!

EXCLUSIVE TIME-LINE CONTROL OFFERS GREATER EASE . . . GREATER FLEXIBILITY



Not even a dial to set! Housewife merely presses the Time-Line button and the new Norge does the rest. It *automatically* fills with just enough water for any size load—then washes, rinses, spin dries, and turns itself off—*automatically*! User may skip or repeat any part of the cycle because every step is visible *all* the time.

Tops the field in features. Actual tests prove that the exclusive Double four-vane agitator in the new Norge provides the best washability in the industry. Other features include *five* warm rinses with agitated *overflow* rinsing, tangle-free spin-drying, plus lower water consumption . . . and a *lower selling price!*



Watch these stars make NORGE the best-known washer in America!



KATE SMITH

What Kate says, folks *believe!* On her *night-time* TV show, "The Kate Smith Evening Hour", see her sell the new Norge Automatic Washer and the entire Norge line in her own sincere way. She's on NBC for Norge every other week in all available TV markets.



RED SKELTON

When Red tells 'em, audiences *listen!* And he's now on for Norge in the "Red Skelton Radio Show", promoting the Norge Automatic Washer and other Norge home appliances. The show is broadcast every week in key areas that can't be reached by television.

What a combination! Kate Smith on TV and Red Skelton on radio . . . selling the new Norge Automatic Washer and other Norge home appliances to your potential customers *right in their homes* week after week. It's a big-time advertising campaign that *really hits home!*

And even *that's* not all. Watch for a forthcoming schedule of dynamic, hard-selling magazine advertising that *means business* for Norge dealers everywhere!

You won't know what you're missing if you don't sell

NORGE

THE LINE THAT PAYS OFF FOR THE DEALER!

Canada—Addison Industries, Ltd., Toronto

REFRIGERATORS • GAS RANGES AND ELECTRIC RANGES
WASHERS • ELECTRIC WATER HEATERS • FREEZERS

York Ice Maker--

(Concluded from Page 1, Column 5)
equipment to produce ice in small pieces at the point of use by the smaller commercial establishments including bars, hospitals, soda fountains, hotels, restaurants, taverns, green grocers, chain stores, seafood houses, poultry stores, and other handlers of foodstuffs, including the military, where the daily ice requirements usually do not exceed 250 to 300 lbs.

The product of the new ice maker, it was explained, is in a slightly curved form.

"Because of the greater exposed surface area, it provides faster cooling of liquids," York said.

These small fragments of ice are claimed to be so delicate that they won't bruise or puncture fish, poultry, or even roses, when used in bulk, such as in a shipping carton or crate. Melting also is retarded because of the shingling action of the curved pieces of ice, the company stated.

Commenting on the new product, Lauer said the unit was engineered for compactness, light weight, overall economy, sanitation, and trouble-proof operation. The refrigerant-freezing circuits operate as a unit, hermetically sealed.

Through a "unique" freezing process, he said, air is freed from the ice and the chemical salts precipitated in the freezing process are carried off to the drain, resulting in "clear, curved fragments of ice, purer than the water itself."

Although the size and type of ice should readily replace, for any purpose, average size, crushed ice as presently used, it is more effective in



York model DER-2 Flake ice unit.

chilling liquids, for food preservation, and many other applications, it was stated.

The unit is air cooled and can be plugged into an electrical socket. It has an announced capacity range of from 200 to 300 lbs. daily, although the unit itself is only 32 1/2 in. high and its widest diameter is only 24 1/2 in.

The new unit, which has approval of the Underwriters' Laboratory, is claimed to feature lower operating cost per pound of ice produced. York said it is expected that the ice maker will pay for itself within one to three years depending upon the amount of ice used by the customer.

Appearance of the new ice maker differs considerably from the present larger models of automatic ice making equipment.

Servel Room Units-- More Metals--

(Concluded from Page 1, Column 5)
Jones said. "The distributor who handles Servel refrigerators and Servel water heaters can offer another great home convenience bearing an established brand name. The air conditioning distributor can greatly widen his coverage of the field with the new room air conditioner. With it he can offer customers modern air conditioning for every type of installation—from a single room or a small office to large residences and heavy-duty commercial applications."

One of Servel's first steps in developing the new room air conditioner division was the recent appointment of John H. Jennings as chief engineer. Jennings was formerly chief engineer of Mitchell Mfg. Co., Chicago.

The resources of two different divisions of the company will be combined in producing the new room air conditioners, Jones indicated. One is the commercial electric refrigeration division, the company's oldest. The other is the air conditioning division, the company's newest.

Electric compressor-type refrigerating units for the air conditioners will be built by the commercial electric refrigeration division. For several years this division has been supplying similar units for room air conditioners assembled by other manufacturers.

Comfort cooling "know-how" will be supplied by Servel's air conditioning division. In 1939, this division introduced the Servel "All-Year" air conditioner, providing both summer cooling and winter heating from a single gas-operated unit. Latest addition has been an oil-fired unit.

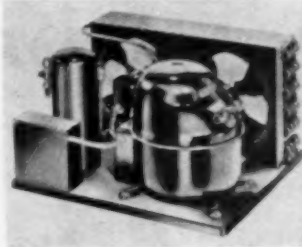
(Concluded from Page 1, Column 5)
at capacity, however, DPA has increased its "over-allotment" of materials. For the third quarter, the agency will distribute CMP tickets for 18% more steel, 16% more copper, and 17% more aluminum than is expected to be produced. This is done on the theory that some manufacturers will not need the materials allotted them for the quarter and will not cash their tickets.

In addition to giving more materials to consumers durable goods manufacturers, DPA has more than doubled the allotment of steel to commercial building projects and substantially increased steel allotments to multiple and public housing projects. Steel for industrial construction, on the other hand was reduced more than 20%.

DPA figures showed that the military, because of the "stretch-out" of the defense program, actually turned back to DPA from their second quarter allotments 168,000 tons of steel, 35,000,000 lbs. of copper, and 36,000,000 lbs. of aluminum. These amounts were reallocated to producers of civilian goods, with special attention to those who had suffered most under the allocations system.

Manly Fleischmann, head of DPA, said that while the present easing in demand for metals comes as a welcome breathing spell, "we should keep in mind that it could be temporary."

"A slight tightening of demand," he added, "could easily throw the balance the other way, and for this reason, it is necessary to use the present system of distribution to insure that demands for the military, the Atomic Energy Commission, industrial expansion, and other vital production programs are met in full and on time."



Tecumseh model HA-100LT, 1-hp. unit.

Tecumseh Big Units--

(Concluded from Page 1, Column 5)
hp. are capacitor start, capacitor run, while the 3/4-hp. low back pressure has capacitor start, induction run. Over-all height is held to 12 1/2 in. on the 3/4 and 1-hp. models and 13 1/2 in. on the 1 1/2 and 2 hp.

The compressors are all built into high sides covering the full range of back pressures from 3/4 hp. low to 2 hp. high. In the 1 hp. and 1 1/2 hp. high sides, a double fan arrangement is employed to provide more efficient cooling to the condenser surface and reduce height to a minimum. On the 1 hp., height is held to 13 in. and on the 1 1/2 hp. it is held to 13 1/2 in.

Noise and vibration have been reduced, making this line of compressors and high sides ideally suited to all commercial applications including air conditioning, the manufacturer said.

The Tecumseh hermetic line now includes high sides from 1/2 to 1 1/2 hp. in the full range of back pressures.

Gilbreath Heads ACMA Residential A. C. Section

WASHINGTON, D. C.—A residential air conditioning section in the Air Conditioning & Refrigerating Machinery Association was formed recently and is already laying out a program of activity, the association has announced.

J. A. Gilbreath of Servel, Inc. heads the section while A. B. Newton of Acme Industries, Inc. is vice chairman.

The section includes in its scope not only the conventional forms of residential air conditioning using compression or absorption types of refrigerating equipment, but also the heat pump.

Statistical and marketing activities are planned. Immediate attention, however, is being given to the formulation of recommended application engineering standards for installation and operation of year-round air conditioning equipment in residences.

This work will be done cooperatively with the National Warm Air Heating and Air Conditioning Association and other industry groups.

Section members include Acme Industries, Inc.; Chrysler Airtemp Div.; Brunner Mfg. Co.; Bryant Heater Div.; Affiliated Gas Equipment, Inc.; Carrier Corp.; Frigidaire Div.; General Motors Corp.; General Electric Co.; Servel, Inc.; Westinghouse Electric Corp.; Worthington Corp.; and York Corp.

'Golden Anniversary of Air Conditioning' To Be Theme of Carrier Show

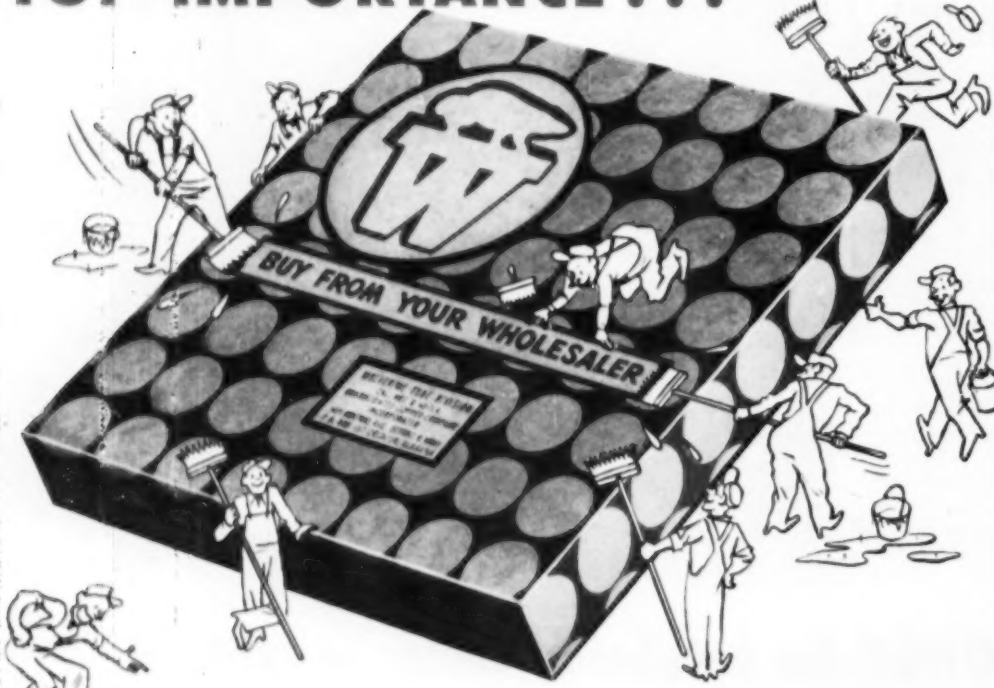
CHICAGO—"The Golden Anniversary of Air Conditioning" is the theme of the forthcoming Carrier Product Exhibit to be held starting March 31 at the Graemere hotel, Homan Ave. at Washington Blvd. in Chicago.

Temperature Equipment Corp., Carrier distributor, and Air Comfort Corp., Carrier installer and engineer, both of Chicago, are joint sponsors.

H. J. Prebensen, president of Air Comfort Corp., has extended a personal invitation for all interested to attend. Officials of the companies will conduct visitors through the various displays in the Wedgewood Room of the Graemere according to a pre-arranged schedule: Temperature Equipment Corp., March 31, April 1 and April 2 from 1 p.m. to 10 p.m.—Air Comfort Corp., April 4, from 2 p.m. to 10 p.m.

Special invitations have been extended to dealers in air conditioning, refrigeration, and appliance equipment for the March 31, April 1, and April 2 tours. Engineers and architects have been invited to tour the exhibits on April 3 and 4.

TOP IMPORTANCE...



There's nothing we could add to the top of the Wolverine carton that is more important to you than the words "BUY FROM YOUR WHOLESALER", a phrase that has the suggestion of directing customers to you. This legend now appears on all the individual cartons that carry coils of Wolverine copper tube.

This expression, which reflects our long-established distribution policy of selling through wholesalers, deserves all the emphasis we can give it.

Its constant reiteration should do much to further your relationship with your customers.

WOLVERINE TUBE DIVISION

CALUMET & HECLA CONSOLIDATED COPPER COMPANY

INCORPORATED

Manufacturers of seamless, nonferrous tubing

1413 CENTRAL AVENUE • DETROIT 9, MICHIGAN

Wolverine Mill Depots:

DETROIT, MICH. • DECATUR, ALA. • HOUSTON, TEXAS • LOS ANGELES, CALIF.
LONG ISLAND CITY, N. Y. • PHILADELPHIA, PA. • PROVIDENCE, R. I. • ST. LOUIS, MO.

Export Department, 13 E. 40th St., New York 16, N.Y.

Can Deliver CMP Metals 15 Days Before Quarter

WASHINGTON, D. C.—Users of controlled materials may now receive them from distributors 15 days prior to the quarter for which the allotment is valid, the National Production Authority announced.

NPA said that, in effect, this change, an amendment to Controlled Materials Plan Regulation 4 covering deliveries of controlled materials by distributors, provides a 105-day quarter for purchase of steel, copper, and aluminum from distributors.

Another change to CMP Reg. 4 allows a distributor to reject any order for controlled materials if the person seeking to place the order is unwilling or unable to meet the distributor's regularly established prices and terms of sale or payment.

Amendment to GOR-21 Permits Price Adjustments on Parts

WASHINGTON, D. C.—Manufacturers pricing their products under Ceiling Price Regulation 22 and who took Capehart price boosts under Special Regulation 17 to CPR 22, may now seek the same price adjustments on the replacement parts they manufacture, the Office of Price Stabilization ruled recently.

The ruling was made as Amendment 1 to General Overriding Regulation 21 and became effective on March 29.

Baker Sales Conferences Begin In Atlanta March 31

SOUTH WINDHAM, Me.—First in a series of distributor sales conferences planned by Baker Refrigeration Corp. was scheduled to be held in Atlanta March 31, announces Mark E. Mooney, vice president in charge of sales.

Baker's new five-year warranty, recent developments of the engineering department, and plans for the immediate future will be outlined for distributors, according to Mooney.

Service and engineering policies will be discussed with distributors by William Rehor, service manager, and Fred Riedel, chief design engineer.

The fast-moving crew will follow the Atlanta meeting with one in Birmingham April 1; Houston, April 2; Dallas, April 3 and 4; Omaha, April 5; Chicago, April 7 and 8; Cleveland, April 9; and Philadelphia, April 10.

SUNROC

"THE BEST VALUE FOR THE MONEY"

And What This Means To You

In the last few years, for a variety of reasons, many consumers have been treated shoddily.

The results are being felt today in many lines. Yet, buying resistance is a mystery to quite a few manufacturers and to some wholesale and retail outlets.

At Sunroc we have established and maintained one simple answer to all this confusion. We have always offered and will continue to offer "the best value for the money" in our complete line of electric water coolers and water purifiers. And we treat customers fairly.

Thousands of satisfied users of Sunroc products attest to the correctness of this policy.

For those who sell Sunroc products, this steadfast policy means that their sales job is simpler. They have the priceless ingredient of customer satisfaction, which helps them get repeat sales along with new installations of Sunroc equipment.

In choosing a line of products it is wise to look beyond quick opportunities. Long-term successful selling operations are built on more complete and better designed lines, plus superior product performance and manufacturing integrity. That is our specialty.

For a limited time we are offering these many plus values to a select number of qualified distributors who like to deal with satisfied customers, too.

Because of the extra values built into our products, we are certain that the Sunroc franchise can mean greater sales, greater profits, and long-term satisfaction for you.

If you are interested in getting complete details on the Sunroc proposition, please write me today.

Very truly yours,

Orville C. Morrison
President

AMERICA'S MOST COMPLETE LINE OF ELECTRIC WATER COOLERS

SUNROC COMPANY

GLEN RIDDLE, PA.

"The Best Value



for the Money"

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)
life for all mankind unless birth rates in most of the world are reduced to about one third of the physiological maximum." Prof. KARL HAY, Food Resources and Population Growth, Bulletin of Atomic Scientists

"That should be long considered which can be decided but once."—BYRNE

Socialism is Communism with a time fuse.

Submitted by Ranco's Eddie Graft

"In the friendly city of St. Augustine great flocks of seagulls are starving amid plenty. Fishing is still good, but the gulls don't know how to fish. For generations they have depended on the shrimp fleet to toss them scraps from the nets. Now the fleet has moved to Key West.

"The shrimpers had created a Welfare State for the St. Augustine seagulls. The big birds never bothered to learn how to fish for themselves and they never taught their children to fish. Instead they led their little ones to the shrimp nets.

"Now the seagulls, the fine free birds that almost symbolize liberty itself, are starving to death because they gave in to the 'something for nothing' lure! They sacrificed their independence for a hand-out.

"Let's not be gullible gulls."—From an advertisement published by the Barnett National Bank of Jacksonville, Fla.

How Petty Can They Be?

John E. Murphy of Mohawk, N. Y., was jailed for raiding his own refrigerator.

Fred Graves, Justice of the Peace, sentenced him to 15 days in Herkimer county jail on the complaint of his wife, Caroline, who charged him with petty larceny for the theft of three dozen eggs from the family refrigerator.

Where Is His Like Today?

First United States coin was a half dollar struck off in 1792 by John Harper of Philadelphia. On one side it read: "George Washington, The First President of the United States." On the tail side Harper had engraved an eagle and 13 stars.

President Washington turned it down for reasons of modesty and economy. As to the latter, he noted that the design would require new dies for each succeeding Chief Executive.

People Are Suspicious

Fellow in our industry reports that he revived an old experiment in sales psychology. On a busy street-corner he hawked dollar bills to one and all for 98 cents. Only three persons bought his bargain dollar bills. Those three were old friends and neighbors.

Our experimenter concluded that people were afraid of this bargain because they didn't know him, and hence didn't trust him.

Although he was selling a reasonably high grade product at an attractive price, he was spurned by all except three buyers who were his friends and neighbors.

Moral: It pays to advertise your name, and to make friends.

Washington Notes

Realizing that Congressmen love "ink" (publicity) in an election year, newspaper correspondents now get up and leave the room together when Senate or House sessions are prolonged. Almost invariably, the reporters have found, adjournment follows quickly.

Americans now pay more in taxes than they do for their annual food bill. In 1940 United States citizens spent \$17.1 billion for food and paid \$12.7 billion in taxes. During 1950 the food bill stood at \$52.5 billion while taxes were approximately \$57 billion.

The difference will be even greater this year. Incidentally, food bills would be lower if your taxes weren't used to "support" (keep high) the prices of farm products.

News from Australian Correspondents

Unable to find a place to live in Sydney, Allan Wilkes and family

tried to set up light housekeeping on a traffic island. They were fined the equivalent of nine dollars.

"Whatever happened to brother George?" William Patterson, 74, had asked friends for 53 years.

Similar questions furrowed the brow of 62-year-old George.

By happenstance their wives met in a Melbourne butcher shop, gossiped, and reunited the brothers.

Bill and George, it turned out, had been living a few houses apart for the last five years.

Out of Our Mailbag

Flakice Corp.
Brooklyn, N. Y.

Editor:
Your "Inside Dope" column headed, "What's the Secret of Our Success?" certainly hit the nail on the head—as you have been doing for many years.

I can add nothing to the main theme of your column excepting perhaps a slight supplement as shown in the enclosed reprint entitled "The Small Manufacturing Company as an Opportunity for Engineering Graduates."

CROSBY FIELD

New Effington Creamery
New Effington, S. D.

Editor:
I read your column every time the REFRIGERATION NEWS comes out. I find it very interesting and I like the jokes. I have a joke here I would like you to read. It is slightly spicy and it is very cute.

A kitten running down the street was singing "All I want for Christmas is three little kittens."

A tomcat heard this and he started chasing her while singing, "Here comes Santa Claus."

It's kind of late in season, but I think it's still good.

ROLAND GRIEF

Chrysler Corp.
Export Div.

Editor:

A story going the rounds has it that during the 1948 campaign Mr. Truman's train stopped on an Indian reservation and the President delivered a speech.

"I am appalled," he said, "at the treatment of you noble Red Men by administrations previous to mine, particularly the Republicans. As our train pulled in, I saw squaws washing clothes by the riverside. I intend to have an automatic washer installed in every tepee!"

The Indians broke into loud cries of "Oompah-oompah!"

The President beamed broadly and continued, "And I understand you are still obliged to dry beef for jerky. Well, I intend to see that every wigwam is equipped with a home freezer."

Again the Indians shouted, "Oompah-oompah!"

The President soared to a climax. "If re-elected, I intend to see that a new Pontiac shall stand before every tepee."

As he bowed, the Indians roared out their mightiest "Oompah!" Their chief came forward and placed a war bonnet on the President's head. Then he led the Great White Father to the corral.

"The Indians of this reservation," he said, "take great pleasure in presenting you with a silver-mounted

saddle and our very best Indian pony."

As the President prepared to mount the handsome animal, the Chief cried out, "Be careful, Mr. Truman. Don't step in the 'Oompah!'"

KEN L. CROPEAU
Airtemp Sales Manager

It Is Still Money

Not long ago O. B. "Jack" Lance of Evansville won first prize in a Los Angeles Herald-Express contest for the best cartoon caption. Lance is advertising and sales promotion manager for Servel's electric refrigeration division. Inasmuch as there were 1,200 contestants—most of them professional advertising men—it was quite a boost to Lance's pride.

Hayden H. Young, representing the Los Angeles newspaper, came from Chicago to present Jack with the prize. He went to a bank to get the cash. From there, in a heavy rain, he proceeded to the Servel plant.

"I can't make good," he mourned. "The contest announcement says the prize is two new, crisp \$100 bills. Look at these!"

They were \$100 bills all right, and they were new, but they were moist, limp, and anything but crisp.

Jack isn't complaining.

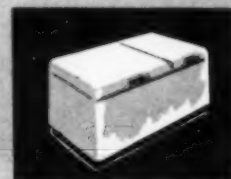
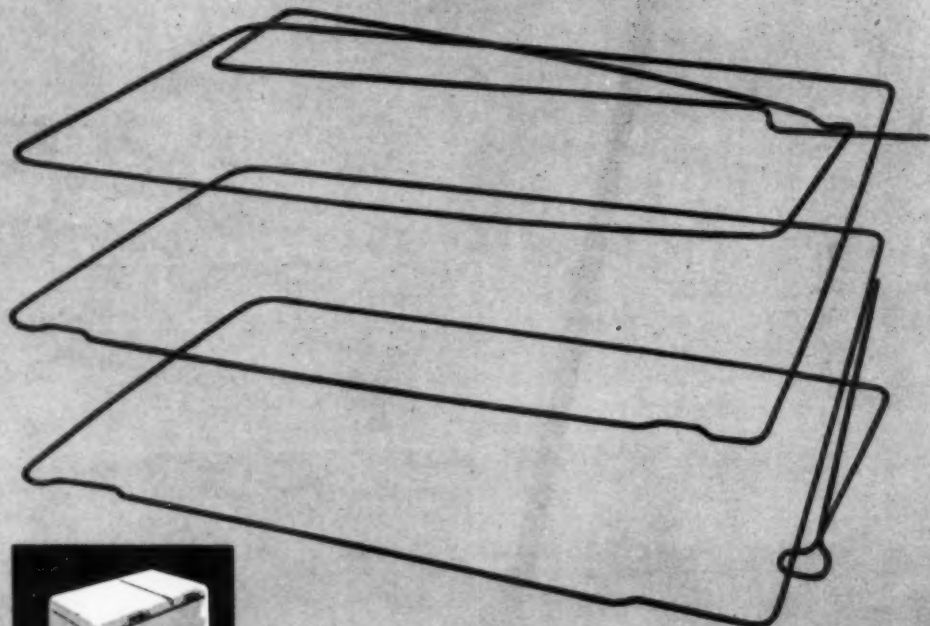
United Nations News

Popular in New York nowadays is the United Nations cocktail.

Ingredients: Scotch, American bourbon, Italian vermouth, Russian vodka, Dutch gin, French absinthe, Swedish aqua vita, and a splash of Mexican tequila.

One U.N. cocktail and you make a speech. After three you're speechless.

Your greatest



1. TIME SAVINGS

The 1/4"-O.D. anti-sweat home-freezer coil shown above required 39 bends in its 40' length of Bundyweld. Bundy engineers, with their usual attention to cutting costs, devised a single fixture that permits complete fabrication of the complicated part in a matter of seconds—with subsequent cost savings through mass production. When you specify Bundyweld, you tap priceless engineering skills that can help you produce your tubing parts faster, better, cheaper.

WHY BUNDYWELD IS BETTER TUBING



Bundyweld starts as a single strip of copper-coated steel. Then it's . . .



continuously rolled twice around laterally into a tube of uniform thickness, and



passed through a furnace. Copper coating fused with steel. Presto . . .



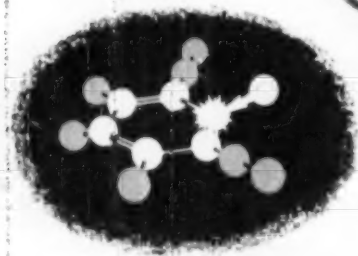
Bundyweld, double-walled and brazed through 360° of wall contact.



NOTE the exclusive patented Bundyweld beveled edges, which afford a smoother joint, absence of bead and less chance for any leakage.

SIZES UP TO 3/8" O.D.

THESE WON'T SPLIT



heat-x

CAST ALUMINUM LIQUID COOLERS



for Water



for Beer



for Soda



heavy duty Water

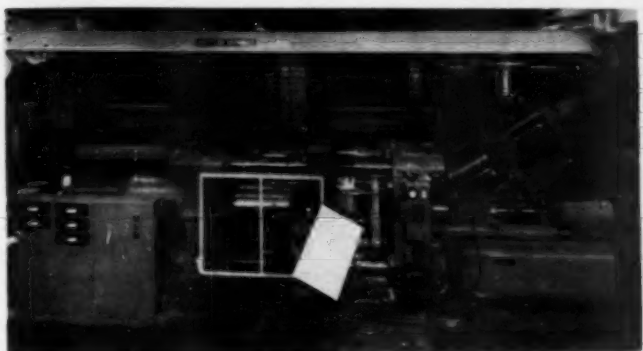
No more split tubes due to freezing. Heat-X engineers were determined to design a non-split cooler . . . a cooler that couldn't split. Casting liquid and refrigerant coils in a compact aluminum block was the answer. The result . . . a better cooler, lower in cost, easier to install and service with more profit for you. Investigate the Heat-X line today.

WRITE DEPT. AC FOR SPECIFICATION SHEETS



THE HEAT-X-CHANGER CO., INC.
BREWSTER, NEW YORK

Bundy Tubing Distributors and Representatives: Cambridge 42, Mass.: Austin-Harling Co., Inc., 226 Bimney St., Bank Bldg. • Chicago 32, Ill.: Latham-Hickey Co., 5333 W. 47th Place • Elizabeth, New Jersey: A. B. Murray Co., Inc., Post Office Box 478 • Philadelphia 3, Penn.: Ritten & Co., 1717 Sanson St. • San Francisco 10, Calif.: Pacific Metals Co., Ltd., 3100 19th St. • Seattle 4, Wash.: Eagle Metals Co., 4755 First Ave. South • Toronto 5, Ontario, Canada: Alloy Metal Sales, Ltd., 881 Bay St. • Chattanooga 2, Tenn.: Fairbank-Deakin Co., 823-824 Chattanooga • Bundyweld nickel and Monel tubing is sold by distributors of nickel and nickel alloys in principal cities.



7½-LB. REFRIGERATOR DOOR LINER, created for Admiral Corp., is the largest injection molded plastic product ever to be produced. Pressman is shown above removing one of the molded pieces from the giant press at Amos Molded Plastics, Edinburg, Ind.

Giant Plastic Molder Forms Refrigerator Door Liner; Conserves Metals, Lowers Costs

GALESBURG, Ill.—The world's largest injection molded plastic part is being used as an inner door liner on the new 12.2-cu. ft. two-door Admiral "Dual-Temp" refrigerator, reports Lee H. D. Baker, vice president-appliances for Admiral Corp.

The new polystyrene door liner, which measures 43½ by 28 in. with a projected area of 1,240 sq. in., weighs approximately seven and one half pounds, Baker said. It was developed by Admiral engineers in cooperation with engineers at Amos Molded Plastics at Edinburg, Ind.

Produced in one piece on a huge custom mold that weighs five and

one half tons and costs in excess of \$25,000, the refrigerator door liner contains supports for shelf fronts, egg compartments, and a butter conditioner. It is assembled to the large lower door of the two-door refrigerator, Baker pointed out.

According to the Admiral executive, the new liner has the following advantages:

1. Conserves steel, titanium, cobalt, and other critical materials normally used by the appliance manufacturer for porcelain enameled steel liners.
2. Its one-piece molded construction results in lower assembly costs.
3. Greater resistance to acids,



INNER DOOR LINER being assembled to the lower door of a 1952 Admiral two-door refrigerator. Made of polystyrene, the liner enables the appliance manufacturer to conserve critical materials used in conventional porcelain enameled liners.

chemicals, and chipping.

4. Plastic liner is stronger despite light weight. It reduces over-all weight of the refrigerator.

5. It possesses insulating qualities, does not absorb food odors, and cannot stain.

Production of the giant molding marks a milestone in the history of the plastics industry. It is the first full-scale molded piece to be put in practical production on the 300-oz. Watson-Stillman injection molding machine. Amos installed the first of the giant presses last April.

Production of the tremendous six-ton mold which forms the door-liners was a major project. Ordinarily a mold of this type would take six to

seven months to produce. However, Admiral was anxious to get into production, so that changes in tool design were inaugurated, enabling several tool makers to work on the mold simultaneously. The mold is nearly five feet wide, 38 in. high, and 22 in. deep.

The door-liner is designed so that it can be easily bolted to the outer door with six simple screws. The three shelf edges slip into place in an operation requiring only seconds.

Designers are now looking toward other applications that might be possible on the giant press. Amos engineers are exploring the possibility of plumbing fixtures, washing machine tubs, furniture and office units, and other appliance parts. With the development of larger presses, and the engineering of larger molds and with improvements in molding material, engineers predict that complete refrigeration inner-shells can be molded in one piece, with all fittings molded-in as part of the basic design.

Molding material used in production of Admiral's door-liner is Dow's No. 475 Hi-Impact styrene copolymer.

Overcharges Cost Dealer \$533 In Double Damages

WASHINGTON, D. C.—Overcharging on television service policies has cost Phillips, Inc. here \$533 in double damages, the local unit of the Office of Price Stabilization announced recently.

Store officials declared that the overcharge resulted from bringing a total to round figures in order to figure discount percentages.

Nashville Electric Show Ties In with Open House For New Electric Center

NASHVILLE, Tenn.—The Nashville Electric Service and the Nashville Electrical Dealers Association will combine again this year to stage an "Electric Show" from May 12 to 17, tying it in with a concurrent open house for the new Electric Center building at Church St. and 13th Ave.

Any local retail dealer, distributor, or manufacturer of electrical appliances, television sets, air conditioning devices, electrical supplies or equipment, or allied trade association is eligible to participate. Forty-seven booth spaces are available in the basement of the Electric Center for exhibitors of electrical products.

To promote the show and open house, the utility is planning a special edition of the Nashville Tennessee on the day before the opening of the event. It will also run six advertisements daily, make spot announcements over four local radio stations the week prior to the show and during the show, put special inserts and tickets in with its electric bills, buy 352 triple size bus cards, use three billboards, supply 75 large window display cards for use in stores of exhibitors, and put up two "across the street" banners.

As attendance incentives, there will be two half-hour entertainment shows each night plus a number of door prizes. These prizes will be displayed on the sales floor of the utility for one month prior to the show.

Gathings, Erhard Given New Perfection Posts

CLEVELAND—William B. Gathings has been appointed manager of the Jersey City, N. J., sales district of Perfection Stove Co., according to L. Bushfield, general sales manager. Gathings was formerly Jersey City district office manager. He replaces H. C. Erhard, who is returning to Cleveland to be special assistant to C. H. Foulds, vice president and director of contract sales.

Risucci Opens In New Location

UTICA, N. Y.—Risucci Home Appliances has been opened at a new location and in newly remodeled quarters at Third and Bleeker.

The establishment, of which Michael Risucci is proprietor, has been located for the past four and a half years at 648 Bleeker.

Associated with him in the business are his son Nicholas, as sales-serviceman, and his daughter-in-law, Kathleen, wife of Arthur Risucci, who has charge of the office.

Deepfreeze Produces Singing Commercials, Sales Training Records

NORTH CHICAGO, Ill.—Sixteen singing commercials—eight featuring Deepfreeze refrigerators and another eight featuring the company's home freezer line—have been recorded and pressings are now available to distributors and dealers, Ben G. Sanderson, general sales manager of Deepfreeze, announced recently.

Sanderson also reported that the company has produced two 12-in., 33½ r.p.m. recordings to help dealers improve their training of major appliance salesmen and keep them refreshed on the Deepfreeze product line. These are also ready for distributors and dealers.

Male and female voices, musical instruments, and professional announcers are used in the commercials. Features, conveniences, and price advantages of the Deepfreeze lines are stressed. The spots are timed for either 20-second or one-minute station breaks, and from eight to 12 seconds is reserved on each spot for the local dealer's identification.

Six home freezer and seven refrigerator filmed commercials have also been developed for dealers who wish to line up television time to promote sales. These spots run 30 seconds in length and demonstrate the products, their features and uses. Time is allotted for local dealer identification.

Deepfreeze is also supplying dealers with a portfolio of local radio and TV announcements varying from 15 seconds to a minute in length. One series of these spots is devoted to home freezers, another to refrigerators, and a third to ranges, while a fourth series covers the complete Deepfreeze product line.

Staff announcers on local radio and TV outlets handle these commercials for the dealer who contracts for the time, Sanderson points out.

A complete sales presentation on 1952 Deepfreeze home freezers is the hub around which the sales training recordings are developed, Sanderson says. Professional actors take the part of dealer salesmen and customers in this recorded "interview" in a typical dealer's showroom. Complete play-back of the recording requires about 40 minutes.

"The average appliance salesman doesn't take the time to read page after page of a sales manual," Sanderson points out. "So we've prepared for him a 'sugar coated' lesson that he can listen to at home or at work—over and over again until he's got it down pat."

Crosley To Make B-47 Armament Equipment

CINCINNATI—Crosley Div., Avco Mfg. Corp., has been designated by the U. S. Air Force as a producer of armament equipment for the Boeing B-47 Stratojet bomber.

The armament equipment for the medium bomber was developed and also is being produced by G-E.

refrigeration tubing buy on every count

You buy unmatched tubing features, dependable performance, plus cost-paring engineering skills when you specify Bundyweld Tubing

You get more for your tubing dollar when you specify Bundyweld for evaporators, condensers, vital refrigerant lines.

You buy unequalled tubing features. Bundyweld is the only tubing double-walled from a single strip, copper-brazed through 360° of wall contact. It has high bursting strength, high thermal conductivity. It's leakproof, lightweight, yet stronger.

You buy tubing performance that has made Bundyweld a byword for dependability, proved by the millions of refrigeration units made with

tubing parts of Bundyweld since 1930.

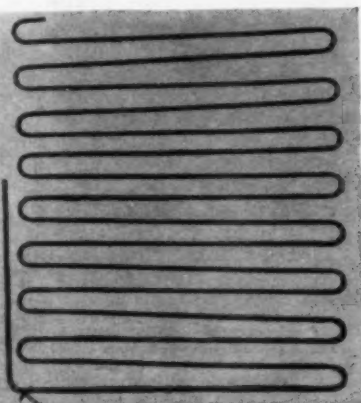
More, you buy the industry's finest skills and services. Bundy engineers help you work out the easiest, most economical way to produce new tubing parts; often save money by showing you how to use less tubing, how to make production short cuts. If you wish, Bundy will take over complete fabrication of your tubing parts, produce them as specified, deliver them on time.

Whether you prize dependable performance or cost-cutting engineering skills, specify Bundyweld . . . and you'll buy both.

Contact a Bundyweld Distributor (listed lower left), or write Bundy Tubing Company, Detroit 14, Michigan

Bundyweld Tubing

DOUBLE-WALLED FROM A SINGLE STRIP



2. FABRICATION SAVINGS

Bundy helps you whip fabrication costs. Refrigerator condenser coil shown above has 16 bends plus an auxiliary bend (arrow). Bundy's patented multiple-bending machines made speedy production of the 16 bends a certainty. The problem: how to produce the auxiliary bend at the same high speed. Bundy engineers went to work, created a special fixture to produce the auxiliary bend on a group of parts simultaneously. The result: total fabricating time reduced, costs lowered.

3. PRODUCTION SAVINGS

Bundy engineers are always on the alert to trim production costs to an absolute minimum. The ½" suction tube shown above is an example. Despite the two close bends and the upset involved, Bundy engineers devised a way to produce the part complete in one press operation. The result was lowered cost-per-unit, impressive savings for the customer on a high-volume order. These priceless engineering skills go to work for you when you specify Bundyweld.

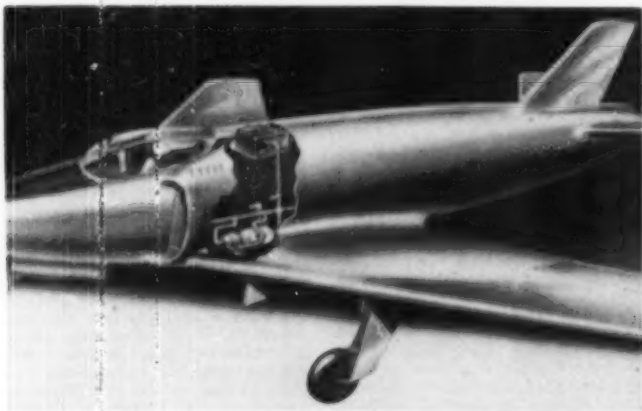
no problem

with **RUDY** CONDENSERS

All sizes and types . . . standard models . . . experienced engineers fit unit to your job . . . modern plant assures low cost, high quality.

WRITE FOR DETAILS

RUDY Manufacturing Co.
Specialists in
Manufacturing Evaporators and Condensers
DOWAGIAC, MICHIGAN



JET FIGHTER plane is cooled by air cycle refrigeration unit (bottom of cutaway) receiving compressed air from AiResearch gas turbine while on ground.

How Industry Has Met Problem of Providing Cooling for Jet Fighters at High Speeds

LOS ANGELES—Air cycle refrigeration units for cooling cockpit, ordinance, and radar compartments are standard equipment in most high speed military aircraft including jet fighter planes, according to AiResearch Mfg. Co., division of the Garrett Corp. here.

A producer of such equipment, AiResearch has recently revealed the results of several years of research in the development of low pressure type pneumatic power systems for

operation of such auxiliary equipment as the refrigeration unit and the starter for the jet engine.

What the company calls its "integrated" pneumatic system consists of the air turbine starter, an air turbine motor or gas turbine motor for driving accessories, the air cycle refrigeration unit, cockpit heating ducting and controls, and a bleed-off type gas turbine compressor.

The gas turbine compressor which supplies the compressed air for the

power system operates on the same fuel used by the airplane and can be installed on the plane itself or used as the ground power source.

It is shown in the accompanying photo installed on the jet fighter (the rectangular unit at the top of the fuselage in the cutaway section) along with the air cycle refrigeration unit.

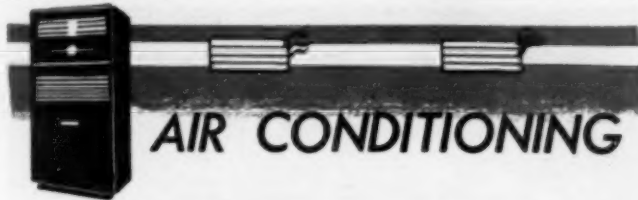
(Previous articles in the NEWS have given detailed descriptions of the AiResearch system of air cycle refrigeration which makes use of the basic principle of adiabatic cooling resulting from the expansion of compressed air.)

The power system, according to AiResearch, can be arranged to pre-cool the compartments at temperatures lower than ambient while the aircraft is on the ground by supplying compressed air to the refrigeration unit.

In flight, the unit receives bleed air from the main engine compressor.

During the standby of ground alerts, the auxiliary compressor is capable of supplying air for cockpit refrigeration and electrical power up until the moment the compressor is called upon to supply air to the main engine starting system. Thus ground refrigeration is possible with no additional weight increase in the airplane.

For heating while on the ground, compressed air from the auxiliary bleed-off gas turbine compressor can be ducted into the aircraft air conditioning system. The considerable heat already present in compressor bleed may be further increased by passing bleed air through a turbine exhaust heat exchanger, and also by utilizing turbine exhaust heat and burning compressor bleed air to attain maximum heating level. The



AIR CONDITIONING

compressor may also be used as external ground equipment. If carried in flight it is a convenient source of additional heat for anti-icing and emergency heat and power after forced landing.

The compressor starts easily at extremely low temperatures—bleed air supplies cockpit heat and windshield defrosting for Arctic ground alerts up until main engine starting (with no aircraft weight penalties). In conjunction with an exhaust heat exchanger, the compressor is a lightweight, efficient combustion heater.

The lightweight bleed-off type gas turbine compressor is extremely versatile, and can be transported by a variety of methods. Either the airborne or ground equipment version, in addition to serving the primary functions of aircraft starting, generation of electrical power, heating, and refrigeration, is capable of supplying power and heat in the form of compressed air to operate many devices for advanced base operation, the company claims.

These compressor units are easily transportable either in or on both fighter and bomber type aircraft. Some of the more obvious applications are: Smoke screen generation and assault boat inflation; refrigeration of hospital tents; power for portable hoists; and defrosting of wings and tail surfaces; power plant pre-heating.

Several aircraft types now flying, and many projected designs, employ AiResearch airborne, pneumatic systems as the major source of auxiliary power. These include the Convair F5Y turboprop flying boat, the Douglas A2D turboprop attack bomber and military jet aircraft now in production. The Allison Convair Turbo-liner, purchased by Allison for flight testing their 501 turboprop engines, is also using AiResearch pneumatic power for starting.

Natkin To Air Condition New Neb. U. Insectary

LINCOLN, Neb.—The University of Nebraska has accepted the bid of Natkin Co. of Lincoln and Omaha to do the plumbing, heating, and air conditioning work on a new insectary building at the College of Agriculture in Lincoln for \$19,450.

The insectary will give the university controlled temperature and humidity quarters for year-round study of insects harmful to Nebraska crops.

20-Ton Packaged Unit To Cool Skyscraper Office

NEW YORK CITY—Packaged equipment with built-in evaporative condensers is used in a new installation for conditioning 5,000 sq. ft. of office area in a New York City skyscraper, it was reported by United States Air Conditioning Corp.

A 20-ton "RK" unit will serve the newly-established offices of Kurt-Orban Co. Inc., American representative for German and French heavy equipment manufacturers, at 205 East 42nd St.

Installed by Cort Mechanical Corp., contractor, the unit, which contains all the elements of a central station system, including water conservation equipment to meet local requirements, measures approximately 10½ ft. long, 6 ft. high, and 3½ ft. deep. Delivered in one piece, it has been placed in a small partitioned area adjoining the offices and occupies a minimum of expensive floor space, Usaico said.

Wesco L. A. Handles Remington A.C. Line

AUBURN, N. Y.—The Westinghouse Electric Supply Co. in Los Angeles is the latest of the Westinghouse houses that has signed to distribute the Remington line of room air conditioners, E. A. Bonneville, general sales manager, Remington Air Conditioning Div., Remington Corp., announced recently.

The franchise signed with Westinghouse covers the territorial area of Los Angeles, and branches in Phoenix, Ariz.; Salt Lake City; and Boise, Idaho.

A. B. Darby, district specialty manager of Westinghouse Los Angeles office, will be in direct charge of promotion of Remington room air conditioners.

John M. Rachal To Head Carrier International Div.

SYRACUSE, N. Y.—Appointment of John M. Rachal as manager of the International Div. of Carrier Corp. was announced by William Bynum, executive vice president.

He succeeds Heman Greenwood, vice president in charge of Carrier's international business for the past eight years, who has retired but will continue to advise the corporation in a consulting capacity.

Rachal, formerly divisional sales manager, became associated with the Carrier organization in 1928, following graduation from the College of Engineering of the University of Kentucky. He has served the corporation and affiliated organizations in a variety of engineering and sales capacities in the Far East, Europe, and Africa, and has traveled throughout the world in connection with sales and installation of Carrier air conditioning and refrigeration equipment.

American Radiator Plant Feels Construction Curbs

BUFFALO — In recent months, American Radiator & Standard Sanitary Corp.'s stamping plant here has turned out an "appreciable volume" of the company's "Mayfair" home air conditioners which are used in conjunction with its furnaces, according to Gilmore Roberts, acting plant manager.

Roberts said the plant also expects to make some of American Standard's "Remotaire" air conditioning units for installation in forced-water systems.

However, he noted, employment in the plant has dropped steadily from 1,100 to 1,200 last summer to about 600 at present, "largely because of governmental restrictions in the construction industry nationally." The plant normally makes hot water heaters, warm air furnaces, oil burners, and water jackets, mostly for homes.

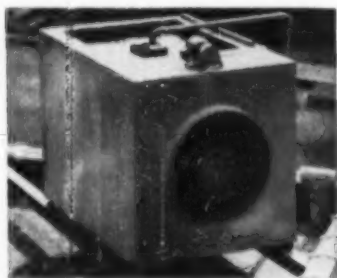
"The air conditioning work has cushioned operations a little," Roberts commented. But, he added, "we're at the point now where we've got to have some war work."

HALSTEAD & MITCHELL COOLING TOWERS

20-Year Guarantee!

On the Wetted Deck Surface of Koppers Pressure-Treated Wood

Here's the industry's greatest cooling tower value... "built like a battleship" for 20 years of foolproof performance. Halstead & Mitchell's pioneering in exclusive use of Koppers pressure-treated wood in the wetted deck surface makes possible the unprecedented 20-year guarantee against rotting, and provides the industry's most effective deterrent against fungi growth. Economical, lastworthy... the special H & M design for water distribution eliminates, thru the use of an efficient gravity-type distributing pan, extra pumping head required on spray type towers, also cuts down windage losses due to atomizing of water. The complete assembly is with Everdur bolts... disassembly is easy even after years of service. Easily accessible for cleaning through inlet on back of towers in all sizes.



MORE EFFICIENT IN ANY INSTALLATION

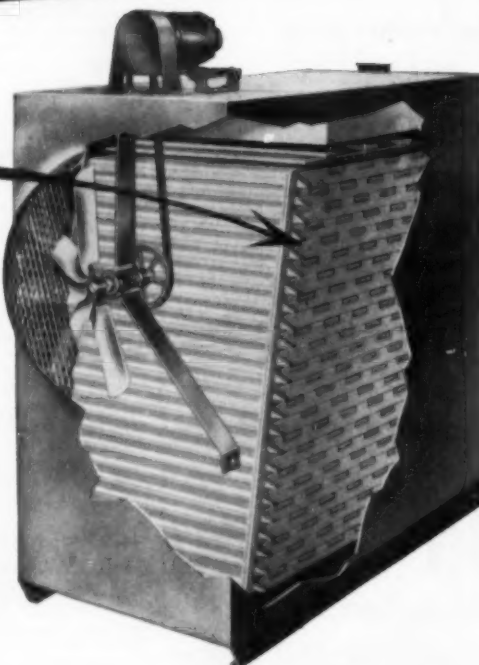
H&M CT-4000 Induced-Draft Cooling Tower supplying the condensing water for 20 HP and 10 HP water-cooled condensing units in 3-story jewelry store room air conditioning. Note open-type distributing pan. This installation also has remote water basin in basement for year-round operation.

5 TONS to 50 TONS

A cooling tower for all applications, from 5 to 50-ton capacities—made by Halstead & Mitchell, one of the world's largest manufacturers of water-cooled Cleanable Condensers.

AT LEADING WHOLESALEERS EVERYWHERE

Write for descriptive bulletin and information on engineering helps.



HOUSING—10 gage (1/8") sheet-steel case with 3 coats Bitumastic lining. Electrically welded cabinet. All bolts used are Everdur for ease of disassembly after years of service.

WATER DISTRIBUTION—Gravity type distributing pan eliminates extra pumping head, cuts down windage losses, due to atomizing water.

FAN AND DRIVE—Quiet-operating stainless steel 8-bladed fan, stainless steel shaft, chrome-dipped rust-proof pulleys. Cast iron bearing supports. Adjustable belt tension.



OFFICES: BESSEMER BUILDING • PITTSBURGH 22, PA.

LOOK to LARKIN

For Efficiency



LARKIN HALF-TURRET HUMI-TEMP

Efficient operation makes a product easier to sell on one hand; builds solid customer satisfaction on the other. Precision engineering—only the best materials—skilled craftsmanship—and almost 25 years experience in commercial and industrial refrigeration—all add up to higher efficiency for every Larkin product. And this means lower operating costs — important to buyer and seller alike.

Manufacturers of the original Cross-Fin Coil — Humi-Temp Units — Evaporative and Air Cooled Condensers — Air Conditioning Units and Coils — Direct Expansion Water Coolers — Steel Vacuum Plate Coils — Heat Exchangers.

WATCHDOG OF THE NATION'S FOOD SUPPLY





TELLING and SELLING

A guide to smart advertising and merchandising practices.

This series of articles comprising ideas and principles for the small retail or manufacturing business is written by James D. Woolf, who was for more than 20 years a vice president and director of J. Walter Thompson Co., one of the largest advertising agencies. Out of his experience embracing all types of advertising and merchandising he brings his counsel to the small businessman.

By James D. Woolf

How To Get Your Ad Seen and Read by the Right People

It goes without saying that the first thing your advertisement must do is to attract attention. If it fails to be seen and to arouse a spark of interest, there is no chance of its being read, remembered, and acted upon.

There are a number of ways to make your ad stop readers. Let's examine a few of them briefly.

1. We all know that people are intrigued by anything that is odd, bizarre, and unusual. This is the reason for Ripley's "Believe It or Not" picture-stories.

2. Nearly everybody, especially men, is attracted to pictures of gorgeous girls, the sexier the better. For years "September Morn" has



("September Morn" has been one of the best selling pieces of art.)

been one of the best-selling pictures in art stores. Firms that make and sell wall calendars say that girly-girl pictures are by far the most popular.

3. Pictures of babies catch almost everybody's eye. This is why you see so many photographs of fetching infants in national magazines and Sunday newspaper supplements.

4. Everybody is fascinated by animals, especially young ones. You've seen traffic stopped while hundreds watch firemen rescue a frightened kitten from the top of a tall tree.

5. Most people have big bumps of curiosity. If they fear they're missing something, they will peep through a knothole to see what it is. This is why you've seen advertisers run their ads upside down.

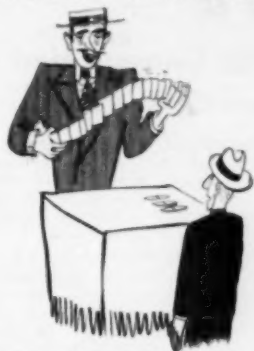
6. People like to laugh, be amused. This is why the colored comic section of Sunday newspapers is the most popular among a preponderant proportion of readers.

IT'S EASY TO CAPTURE READERS' ATTENTION

The foregoing are only a few of the many devices that flag the wandering eye of the newspaper or magazine reader. As a matter of fact, it is really a very simple matter to capture the attention of readers or listeners. But do you want mere attention?

You've watched a pitchman go through his routine on a street corner. At first he stands alone with no audience around him. Before he can begin to demonstrate his fountain

pens or potato peelers, he must first draw a crowd around him. So he



(Corner pitchman must first attract his audience.)

sings, dances, or performs feats of magic.

After his show is over, many of the spectators walk away. They are not interested in fountain pens or potato peelers.

You do not have the pitchman's problem of drawing a crowd around you. The editor of the publication has created a crowd for you. Thousands—and sometimes millions—of people have bought his publication for the express purpose of running their eyes over its pages.

In radio, too, you—unlike the pitchman—have a ready-made audi-

ence created for you. If you are an outdoor advertiser, a continuous stream of cars drive past your posters or painted bulletins. In streetcars a multitude of passengers sit with your card in front of their eyes.

Your ad, no matter what the media, is bound to be exposed to the eyes of a lot of people. Whether they stare at it momentarily and indifferently, or whether they read it through with lively interest, depends largely on whether your message is aimed at all of them or some of them.

You see, a very large number of these people have utterly no interest in the type of product or service you are advertising. They are simply not in the market, and probably never will be. Therefore, the only way you can seize their attention is to show a picture of a leggy girl, a baby, or a funny cartoon. That way you'll get attention all right—but it will be irrelevant attention of very doubtful value.

Far too many advertisers use irrelevant devices in a frantic effort to capture everybody's attention. For example, one advertiser, an oil company, illustrates his ads with big pictures of little babies.

NOT EVERYBODY HAS CORNS AND BUNIONS

What you should seek to attract is the attention of only those people who have a want or need that your product or service will satisfy. If, for example, your product is a corn

pad, aim your rifle straight and true to those among your audience who are afflicted with corns. Have your display line say something like this: "CORNS! How to stop pain in one minute."

If this catch line fails to flag the attention of 85% of your audience, what have you lost? You have won the attention and interest of the 15% who are corn sufferers—your only logical prospects.

This kind of advertising is known as selective selling. Selective advertisements usually are read by only a small percentage of the readers of the publication in which it appears. But that's nothing to worry about because you are driving home a strong selling message into the minds of people who are the most likely prospects for your product or service.

Actually a small percentage of readership—5%, say—is a lot of impact. Suppose your local newspaper, for example, has 100,000 circulation, and that your ad appears in it twice a week. Five per cent of 100,000 is 5,000, and two times 5,000 is 10,000. Fifty-two times 10,000 is 520,000, which means that more than a half million readerships of your selective advertisements in a year.

Tomorrow a small group of people in your community—50 or 100 or maybe a thousand—are going to buy the kind of product you have for sale. Tell them today why yours is the one to buy.

SERVICE ON THE SPOT IN 3 EASY STEPS



- 1 loosen cap screws
- 2 raise power element
- 3 lift out cage

Now the valve is ready for cleaning or repair without removing it from the line. If you want to change capacity, just change the cage.

EASY-ISN'T IT!

This simplified construction also reduces friction—gives faster valve action. All internal parts are made of corrosion-resistant brass or stainless steel. For "Freon 12," "Freon-22," Methyl Chloride.

For further details, write for Bulletin 171.

See your ALCO wholesaler



ALCO VALVE CO.

851 KINGSLAND AVE. • ST. LOUIS 5, MO.

Designers and Manufacturers of Thermostatic Expansion Valves, Evaporator Pressure Regulators, Solenoid Valves, Float Valves, Float Switches.

McCORD CONDENSERS

NO JOINTS
•
MAXIMUM HEAT TRANSFER
•
COPPER BRAZED
•
FULL SIZE BENDS • NO JOINTS
•
COMPLETE RANGE OF SIZES
•
VARIOUS FIN WIDTHS

**UNDERWRITER
APPROVED**

UNDERWRITERS APPROVAL INSURES A
SATISFACTORY PRODUCT IN SERVICE.
Write for Engineering Information

**McCORD
CORPORATION**

DETROIT

Money When You Need It

Dealer's Scheme, Similar to Christmas Club Plan, Helps Customer Meet Down Payment by the Time He Is Ready To Have Room Cooler Installed



GLENHIRE, Pa. Air conditioning sales are expected to triple for the Gerhard Co. here because Sales Manager Thomas B. Birkbeck devised a plan to help customers save enough money to make a down payment on a room unit.

The "vacation club" plan, an Birkbeck terms it, is built along the same lines as Christmas club plans sponsored by banks.

"I felt that if persons saved money all year just for Christmas, why wouldn't they save money for a similar purpose at another time of year, particularly the summer months," Birkbeck reasons. "When they did spend their money, they would have something lasting, like an air conditioning system, for example."

Gerhard's always felt there was a large market for air conditioning. Two factors seemed to be holding back sales, however.

First, the units were purchased in spring and summer when people were a little low in funds because of the Christmas and Easter holidays when a lot of buying was done and payments had to be met.

Secondly, the down payment stopped many customers because they were planning summer vacations and didn't want to make an outlay of cash.

Air Conditioning When You Want It

This conclusion gave rise to the creation of a vacation club that would help customers buy an air conditioning system just at the time that they wanted it most, without having to make a down payment.

During the hot weather, almost anybody would be glad to make a regular weekly payment up to \$3 if they could enjoy a comfortable night's rest. Because so many people will make weekly payments, but find it hard to make the down payment, Gerhard's vacation club succeeded beyond the expectations of the firm.

The company printed coupon books that resemble a check book, complete with stubs. The coupons are numbered from one to 17, which represent 17 weeks. All the customer does is tear off a coupon and mail it in with his check or bring it into the store.

Each coupon is accompanied by \$2. At the end of 17 weeks, the customer has \$34 which represents the down payment on a 1/2-hp. air conditioning unit. When the unit is delivered to the customer, the balance of the financing arrangements are made, suitable to the customer.

"Each club member is given a vacation card that certifies that an air conditioning unit has been laid aside for delivery to that customer upon completing all his weekly payments," explains Birkbeck. "With the last payment, the card is mailed which shows that the customer wants the unit delivered."

Payments Begin In February

Birkbeck started his vacation club in February when most Philadelphians and suburbanites were still wrapped in their overcoats. But he figured that he had to start early enough to permit enough weekly payments to be made to meet the down payment requirement by summer.

"We broke with this promotion in a Philadelphia newspaper, using a 1/2-page ad on Sunday," Birkbeck explains. "This ad was placed near the travel ads and winter vacation resort ads section because we know that many people like to think of warmer weather during winter days."

The following day, Gerhard's was flooded with telephone calls resulting from this initial insertion. It had caught attention for several reasons. First of all, it was the only ad featuring air conditioners in the newspaper. It also had a tremendous attraction because it was near the vacation ad pages and these seemed to "warm up" readers to remember what the weather was like.

The ad itself pictured a tropical beach scene with a picture of an air conditioner. That seemed to answer hot weather problems.

"The combination of this ad and our vacation club plan seemed to have immediate appeal. The following day our switchboard was flooded with calls from prospects demanding more information about it," says Birkbeck. "Probably one of the best features was that we didn't include a price! All we promoted was the \$2 weekly, and every reader was interested in spending this amount just to escape hot weather."

Ad Coupon Pulls Big Response

The ad also had a coupon in the corner, that interested readers could cut out and mail in. Within a few days, the store had accumulated over 80 coupons.

This ad was followed up by smaller ones that followed the same layout and were placed in the comic section of the newspaper. It was felt that almost everyone turns to the comic section of the newspaper and when they do, they are in a mood to consider comfort and enjoyment. The selection of this location has proven itself by the continuing number of calls coming in and the number of coupons being clipped.

"As soon as we received a telephone call or a coupon, we mailed the interested party a letter, telling him that a member of our organization would visit him in a few days to start his membership in our vacation club," says Birkbeck. "In the same letter we enclosed additional information on air conditioners that would help to keep the customer sold on air conditioners until our sales representative was able to get around to him."

Personal Letter Sent To Out-of-Towners

As letters came in from areas not visited by firm salesmen, Birkbeck wrote each prospect a personally dictated letter. In the letter, he explained the club advantages, enclosing a coupon book and membership card. He also enclosed additional literature on air conditioners to help close the sale by mail.

"We drew responses from Wilkes-Barre, Pa.; Atlantic City, N. J.; Dover, Del.; Chestertown, Md.; and dozens of other places where the Philadelphia Sunday newspaper goes," Birkbeck explained.

Each letter helped to show the prospect that Gerhard's wasn't a mail order house that was selling air conditioners on a bargain basis. The firm's letterheads promotes its appliance lines, and literature picturing the store and servicing capabilities helps to show that Gerhard's is a large, well-established organization.

"In all our literature, we try to picture our fleet of service trucks and employees," says Birkbeck. "This is done in our newspaper advertising, direct mail, billboards, and anywhere else we use our name."

Within Gerhard's territory a salesman was dispatched to the prospect's home. The vacation club plan was discussed and the customer told about making weekly \$2 payments until the air conditioner was delivered and from that point on, payments would amount to \$3.04 weekly until paid for.

"Our salesmen sold 75% of all the prospects contacted," says Birkbeck. "They pointed out to prospects, that actually they were paying for a five-year vacation plan, because their units were guaranteed for that length of time. The prospect was also asked how many dollars a week he spent on ice cream, theaters, and restaurants during the warm weather, just because he wanted temporary relief from hot weather."

"Prospects were also shown that they spent more than the weekly \$3.04 during the winter to have ashes removed, pavements cleared of snow, or their basements cleaned without even thinking about it as an expense, but as an absolute necessity. And at the end of the season, they didn't have anything in return for it. But if they paid this amount for the air conditioner, they would finally pay

off a piece of equipment that was an asset to them.

"Our salesmen always speak in terms of weekly payments. They only mention the total price of the unit when asked by the customer. Because it is broken down this way, prospects quickly become customers."

More Than One Unit To a Customer

Every home is surveyed by a salesman before closing the sale. It is possible that a larger unit may be needed in certain rooms or that the prospect may be interested in two units rather than one. Thus a customer could have two coupon books to pay off two units.

If the unit suggested by the salesman is larger than the 1/2-hp. unit promoted by the club, the prospect still pays \$2 weekly and with the last payment adds the difference to make up the down payment. Or he can stretch out payments for a few more weeks.

In order to make every club member a bona fide one, they are asked to sign a postal card which says that they have enrolled in the club. If any customer should change his mind while enrolled in the club (and to date none have), he can apply the money paid in towards the purchase of any other appliance or merchandise handled by the store.

This plan has caught on to such an

extent, that many small retailers, professional men, and other merchants have enrolled. While a Gerhard salesman was in a candy store interesting the owner in the vacation club plan for a unit to be used in his home, two store customers overheard the plan, signed up and gave the salesman \$2 each. He in turn gave them a coupon book, membership card, and other interesting air conditioning data to take home.

"We use a modified plan for retailers," says Birkbeck. "As these retailers buy larger units, we have made arrangements with many to pay \$10 a week until their down payments are complete, and to make the regular weekly payments after delivery."

"In one restaurant, the manager accepted this plan because he felt that by the time he needed the unit, the bulk down payment would be completed. This is figured out by the salesman who determines when the owner needs the unit, and then divides the number of weeks into the down payment. In this same restaurant, the owner signed up for the \$2 club for a home unit and two of his waiters did the same."

The store salesmen are having a bonanza in the vacation club plan. On all their calls, and many of them are cold, they promote this plan to the prospect for only \$2 a week.

(Concluded on next page)

Varied Temperature Needs Create Big Market

TYPICAL REQUIREMENTS—Restaurants have long represented a steady market for air conditioning and refrigeration equipment. Even the smallest diner must have refrigerated storage space as well as some means of cooling beverages. Obviously, as the size and nature of the restaurant change, so will these requirements. A good-sized establishment, for example, might require refrigeration equipment for storage of meats, poultry, fish, fruits and vegetables; below-freezing storage for frozen foods, ice cream and ices; refrigeration for drinking water and bottled beverages; an ice maker; refrigerated display cases; and, in some cases, separate refrigeration for a bar. In addition, most restaurant owners consider comfort cooling an absolute necessity to insure year-round patronage.

Moreover, recent trends in the design of new restaurants and in the modernization of old ones forecast an even brighter future for refrigeration and air conditioning equipment sales. A good example of the trend is shown in Huyler's ultra-modern restaurant on Atlantic City's famed Boardwalk.

A 3-FOLD PROBLEM

In this recently completed restaurant, temperature control presented a three-fold problem: 1—keeping foods fresh, 2—chilling beverages, 3—making customers comfortable. The modern design of the restaurant complicated the problem in that each section was highly specialized... equipped to handle a variety of foods each with a different temperature requirement. Thus, temperature needs varied from snack bar to soda fountain, and from bakery to kitchen and refrigerators.

INSTALLATION OF 17 COMPRESSORS

The architectural firm of Eugene Schoen & Sons, N.Y., engaged the Seaboard Appliance and Refrigeration Co., Atlantic City, to handle the refrigeration and air conditioning phase of the construction work.



Snack bar and main restaurant have air conditioning system that insures customer comfort at all seasons of the year. Note decorative ceiling outlets.

After a careful analysis of the departmentalized system, it was decided to meet temperature requirements area by area, utilizing a total of 17 compressors. Refrigeration for each section was therefore provided by its own installation, permitting maximum efficiency and economy of operation. It was also recommended that a central-system air conditioner be installed to provide year-round comfort for patrons.

The "heart" of the cooling system in this establishment is a heavy-duty water-cooled Frigidaire compressor of 20



Newest of the well-known Huyler chain of restaurants and candy stores, this establishment on the Boardwalk at Atlantic City makes extensive use of modern, compact refrigeration and air conditioning equipment.

Photographs courtesy Frigidaire Division, General Motors Corporation

speaking about TRADE-INS

is a spiffy new 24-page booklet just published by the News. It presents you with some fresh, handy ideas on how to help eliminate one of your perennial nagabugs, the "trade-in" problem.

The whole problem is divided into three categories and some sound, sensible methods on how to deal with each category are described. 1. Acquiring the "trade-in" and determining its worth. 2. Reconditioning the "trade-in." 3. Marketing the "trade-in."

The whole contents of this booklet is compiled from the best articles on and experiences of other appliance dealers whom the News has talked to in the past year. These ideas are actually used successfully and perhaps they would work as well or better for you. At least you can read about them and see how they fit in with your operation.

The booklet sells for 50¢ a copy. Order now! Use this coupon.

Business News Publishing Co.
450 W. Fort St., Detroit 26, Mich.

Please send me _____ copies of your new booklet "Speaking About Trade-Ins," at 50¢ per copy.

Name _____

Address _____

City _____ State _____

8-31-52



CUSTOMER HEARS Thomas Birkbeck, sales manager for Gerhard's, explain how "vacation club" plan can reserve a room cooler for her.

Early Promotion Assures Good Summer Season

(Concluded from preceding page)

Housekeepers are used to the idea of weekly payments and when this is asked instead of a bulk down payment, acceptance is high.

"Last year, we sold 200 air conditioning units through normal merchandising mediums," relates Birkbeck. "Since our club idea started, which was in early February, we have so far sold the same number. We feel that after we have delivered our units to our club members and have opened our regular spring campaign, that sales this year will triple last year's."

Birkbeck feels that too many dealers open their air conditioning sales campaigns too late. To most dealers, early spring is the right time, but this firm doesn't feel this way.

Get Early Start on Campaign

"How many dealers would think of advertising, promoting, and displaying air conditioners during mid-winter," says Birkbeck. "We did it and enjoyed a splendid response. For the month of December, we promoted air conditioners in our display window as a Christmas gift. This window attracted more attention than any

| | | |
|---------------|--|-------------------|
| Account No. | Please make your remittance payable to GERHARD'S Lancaster Rd. and Kenwick Ave. Glenside, Pa. Mail it in with this coupon for proper credit | ACCOUNT N° 103 |
| N° 103 | FILL IN COUPON CAREFULLY | Amount of Payment |
| Payment No. 1 | Name _____ | PAY TO N° 1 |
| Am't _____ | Address _____ | |
| Date _____ | City _____ | |
| | State _____ | |
| | THE FEDDERS VACATION CLUB Gerhard's Air Conditioning Hdgrs. Glenside, Pa. | |

COUPON FROM BOOK issued each club member. Seventeen such coupons, accompanied by \$2 each, meet down payment on room cooler.

other we ever had because people wanted to know why we put air conditioners in the window at this time of the year."

Although many units sold in the store at this time, people remembered the window and kept associating air conditioners with Gerhard's. And the sales during this month equalled those made by other dealers during a summer month. The window display was backed by newspaper advertising.

"We don't depend on the unusual to get air conditioning business," says Birkbeck, "but take advantage of these opportunities in season. We find that ads on Mondays are best. That is because people have just returned from a delightful weekend and have to stay in the hot city for the rest of the week. On Monday they still have a taste of their past pleasure. Therefore, air conditioning ads seem to hit the spot."

Gerhard's has been featuring

Fedders air conditioners in its vacation club plan, because the local distributor, Stuart Louckheim Co. has cooperated with them throughout the origination and promotion of this plan. Other distributors frowned at the idea of promoting air conditioners "out-of-season," but this distributor had faith in the idea. And it has paid off for both him and the dealer.

"We will also service any appliance that we sell and club members are informed that a year's service and installation costs them only \$25 instead of the usual \$35," says Birkbeck. "Here we have another sales point in favor of our club plan."

Ford Heads Engineering Of RCA Air Conditioning

CAMDEN, N. J.—Thomas H. Ford has been appointed engineering manager of RCA room air conditioning activities, it was announced by Robert A. Seidel, vice president, RCA Victor Div., Radio Corp. of America.

In his new position, Ford will be in charge of air conditioning development engineering at the RCA Victor home office here.

Ford has devoted his entire career to air conditioning engineering. He comes to RCA Victor from the Vilter Mfg. Co., manufacturer of industrial refrigeration and air conditioning equipment, where he served as a sales and application engineer. For the five years prior to that he was employed as design engineer in air conditioning for the Westinghouse International Co.

Laube Sees Trend to Multiple Installations Of Room Conditioners

AUBURN, N. Y.—"A significant trend to multiple installations of room air conditioners" was noted by Herbert L. Laube, president of Remington Corp., at the annual stockholder's meeting held at the Remington plant here.

Laube stated: "True air conditioning by Remington has been installed in all of the first units of a multiple housing project designed to provide low-cost homes for South Carolina textile and chemical workers. In each of these houses, two bedrooms are cooled by one built-in Remington console model.

"Another similar installation has been made at Vero Beach, Fla. A number of other important 1951 orders included 'fleet' sales to hotels, motels, and office buildings. This indicates a significant trend to multiple installations of room air conditioners."

A number of orders of military importance, including the development of the 36T mobile cooler for Boeing Airplane Co., Wichita Div., were completed by Remington during 1951. Additional military business is now in the offing.

All of Remington's directors were re-elected at the stockholders' meeting. The directors are: Caleb Candee Brown, Jr., Charles H. Churchill, Laube, Maurice I. Schwartz, Fred Stidole, and M. Mark Watkins.

Immediately following the meeting, the directors held a brief session and re-elected all officers of the firm as follows: Laube, president; Stidole and Watkins, vice presidents; Brown, secretary; and Kenneth E. Latimer, treasurer.

It was reported that Remington showed a 30% sales increase during 1951, "larger than that shown by the industry as a whole."

United Commercial Names Clarke

LOS ANGELES—Gordon C. Clarke has been elected general manager of United Commercial Sales Co. here, wholesaler of refrigeration and air conditioning parts and supplies.

Clarke succeeds A. H. Reinach, who resigned recently as general manager of the firm.

of Modern Restaurants for Refrigeration Equipment

h.p. Located alongside the compressor is a compact, horizontal-type central-system air conditioner of 24 tons refrigerating capacity serving the dining room, which has a seating capacity of 240. The compressor, equipped with step control and an evaporative condenser, provides an extremely flexible and economical operation.

Step control permits the machine to vary its capacity, automatically matching the conditioning load. The system of step control not only shows substantial savings in daily operating expense, but also allows more efficient performance and helps prolong the life of the equipment.

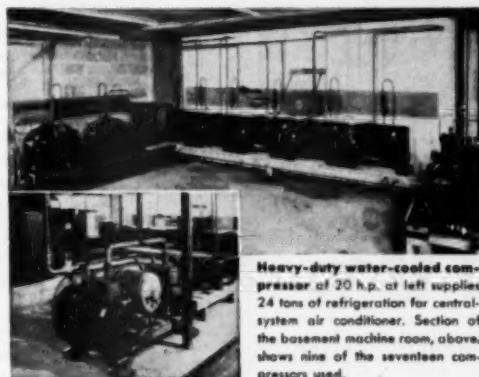
The compressor is connected to a large and suitable evaporative condenser located in an adjacent room. Warm air from the condenser is discharged under the Broadwalk fronting the ocean. Actually, the condenser serves as a water-saver in addition to functioning as a ventilating system for the basement. At the rear of the building, a motorized damper automatically opens when the equipment starts to function, permitting air to be drawn into the basement replacing air discharged from the evaporative condenser. This ventilating system, in turn, aids in removing heat given off by the battery of smaller refrigeration compressors (photo at right), which are combination air- and water-cooled models.

Another important air conditioning application is that of the candy walk-in storage room. This installation was specially designed to control temperature and humidity on a year-round basis in the new structure.

Modern refrigeration also plays an important role in Huyler's new restaurant. Several compressors supply refrigeration to two soda fountains. Three additional com-

pressors are used to refrigerate sandwich- and salad-storage compartments and to provide a sufficient supply of cold drinking water.

In the streamlined, stainless steel kitchen, refrigeration



equipment varies from a 62-cubic-foot-capacity reach-in refrigerator to a smaller sandwich refrigerator operated by a compressor suspended from the ceiling directly below. All breads and pastries are made in the modern bakery located below the kitchen. A large-capacity dough-retarding refrigerator provides ample storage for goods to be baked the day following. Also installed in the basement are five large walk-in coolers for bulk storage.

STUDY YOUR MARKET AREA—As can be seen from the foregoing, the restaurant field offers tremendous possibilities for the installation of extensive air conditioning and refrigeration facilities. The advantages and benefits of these modern improvements scarcely need introduction. Their economic values are widely recognized.

The advent, some twenty-five years ago, of "Freon" safe, nonflammable, nonexplosive, virtually nontoxic refrigerants proved an impetus that has carried the industry far . . . and it is still rapidly expanding.

The outlook today is promising, indeed. There is plenty of new business to be had in both large and small installations in new buildings and modernization work. It's a good plan—at this time—to check your own market area. Make up a list of likely buyers of new equipment. These will include not only the larger establishments but also sandwich bars, cafeterias, tea rooms, coffee shops, and the food-service sections of drug stores, department stores, taverns, night clubs, transportation waiting rooms and hotel dining rooms. Write these prospects. Phone them. Call on them in person. It's a profitable way to build sales.

And when discussing equipment . . . you can further assist your prospects by giving them the benefit of your knowledge. Explain why their selection of machines

charged with "Freon" safe refrigerants will protect their investment . . . insure dependable, economical and trouble-free performance of the system over a long period of time. Another important factor: "Freon" safe refrigerants meet all building-code requirements. E. I. du Pont de Nemours & Co. (Inc.), "Kinetic" Chemicals Division, Wilmington 98, Delaware.



BETTER THINGS FOR BETTER LIVING...THROUGH CHEMISTRY

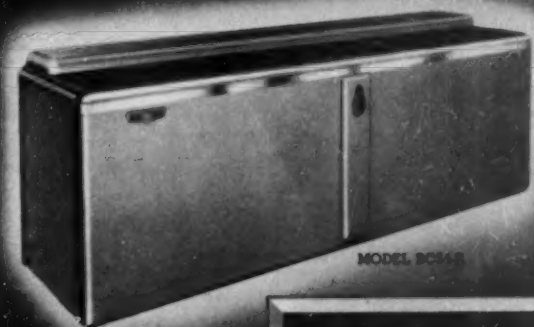
150th Anniversary



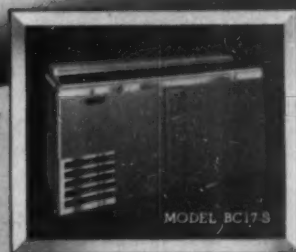
"FREON" SAFE REFRIGERANTS

"Freon" is Du Pont's registered trade-mark for its fluorinated hydrocarbon refrigerants.

Beverage-Air ...enameled finish Bottle Coolers



budget priced for every installation



Famed Beverage-Air "super-cooling" efficiency is now combined with the famous baked-on enamel finished cabinets to give you budget-priced quality for every installation. Available in both reach-in and self-contained models, these new Beverage-Air Bottle Coolers are furnished in four sizes providing unsurpassed serving convenience—top layer of bottles cooled first to speed service . . . every possible cubic inch of cooling space is utilized . . . movable compartment dividers for capacity flexibility . . . glassware storage area on cabinet top . . . well-insulated, free-sliding lids. Yes, Beverage-Air leads the way in modern beverage-cooling.

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Other cooler models available in stainless steel and baked-on enamel finishes.

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"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—Charles A. Dana.

The Dealer Is the Key

PUBLIC "acceptance" of the air conditioning idea is already here. Consumers approve of it. But, unfortunately, they aren't buying it in large quantities. Why? Because they haven't been told the reason why.

The health and service benefits which air conditioning offers to the purchaser—in contrast to the comfort benefits—apparently are not self-evident. They must be sold and sold hard by every dealer, and by every salesman and manufacturer who hopes to share in the progress of this coming industry.

Most air conditioning prospects think only in terms of "comfort," for which they won't pay a high price. But they can be sold "better health" and "better work."

From here on it is the job of the manufacturer to translate this consumer acceptance into actual dealer sales. Before he can do that, he must sell the best specialty dealers on the idea that calling on prospects for air conditioning and telling them the "health and efficiency" story will pay off handsomely. Too few good specialty dealers are now in the business.

For air conditioning units there exists one of the longest prospect lists in the history of the specialty-selling profession. How good and how ripe is each group of these prospects? That's something that canny dealers and salesmen will have to investigate.

They can take off for a rocket-voyage into a profit-stratosphere from these solid platforms:

Air conditioning benefits thousands of industrial plants by diminishing rejection-rates, and by improving working conditions for Union Labor. Millions of workers are laid off annually because of "hot weather"—an inestimable waste of productivity.

And as for the usefulness of air conditioning in commercial enterprises, that's quickly demonstrable. People don't buy when they're uncomfortable. America's 120,000 barbershops, 85,000 beauty parlors, 19,000 morticians, 23,500 laundries, 2,900 advertising agencies, 2,000 dental laboratories, 18,000 printing shops, 5,900 bowling alleys, 2,400 dance halls and dance studios, 16,000 theaters (which are still less than 50% blessed with air conditioning), 25,000 hotels, 83,700 clothing stores, 47,000 home furnishing stores, 13,000 shoe stores, 56,000 auto dealers . . . they all need air conditioning—to survive and remain solvent in the resurgently competitive times ahead.

Air conditioning is a positive health benefit to individuals who work where it has been installed, and that means lower overhead costs to the proprietors through the reduction of "sick leave" pay. Air conditioning ameliorates queasy industrial relations in factories after it has been installed, also; and it can step-up the hot-months sales of seasonal businesses of all types and all sizes when it is purchased and dramatized effectively.

It's a pleasure to work or shop in an air conditioned place of business.

Air conditioning dealers who can personalize these benefits in terms which their potential customers can grasp, and who will put some real time and effort into training and inspiring air conditioning salesmen, will reap the long-promised rewards in the budding air conditioning business.

But first, these dealers must be recruited.



HOW TO GET this huge Victor ice maker weighing approximately 4,000 lbs. into a pit more than 4 ft. deep posed a problem to Frank Shoff (l.) general manager of the McNaughton Appliance store in Fremont, Ind. He solved the problem by filling the pit with 600 lbs. of ice, placing the ice maker on top of it, and then melting the ice. The 5-hp. condensing unit that powers the ice maker sits in the pit behind Shoff and Bernard White of E. A. White & Sons. The unit is installed in White's poultry processing plant in Fremont.

4,000-Lb. Ice Maker Installed In Outside Pit Puts Unit at Convenient Floor Level

FREMONT, Ind.—When Frank Shoff, manager of McNaughton Appliances & Commercial Refrigeration here, sold a bulk ice maker weighing about 4,000 lbs. to a local poultry processing plant, he was faced with quite an installation problem.

In the first place, the 7-ft. ceilings of the plant were too low to permit installation of the ice maker in the building proper. So it was obvious that the equipment would have to be put outside the plant.

Bernard White of E. A. White & Sons, the poultry firm, wanted the top of the Victor ice maker at floor level for maximum convenience in removing the 100-lb. blocks of ice. Shoff figured the only way this could be done would be to dig a pit at the rear of the building and bury the ice maker in it.

But the problem was—how to get the equipment into the pit? Use of

jacks was not practical because they could not be recovered. Neither could the ice maker be lowered into the hole because the sides of the unit would not stand the strain.

After much cogitation, Shoff came up with the idea of stacking 100-lb. cakes of ice in the pit. Then he could set the ice maker on the blocks, melt the ice, and lower the unit into the pit that way.

"By God, it worked like a charm," Shoff recalled. "Once we got the ice maker on the ice, one man could move it anywhere he wanted to. By playing a hose on the ice we let the ice maker settle evenly and exactly where we wanted it. It took less than a half hour to complete the installation."

Prior to lowering the ice maker, a floor of 8 in. of concrete had been laid in the pit. Then concrete walls 8 in. thick were poured. An addition-

al space for the 5-hp. condensing unit was dug at one end of the pit, so that the condensing unit sat at the same level as the ice maker.

With the ice maker installed, frame walls were built up to make the area an integral part of the plant. Access to the ice maker is through a door leading into the plant proper.

A plank catwalk was constructed around the outer edge of the ice maker and a steel beam was extended over the unit at ceiling level. From this steel beam, a pulley and steel chain were run so that it was a simple matter to hoist out the 100-lb. cakes of ice and move them to the ice crusher.

Crushed ice is used by the firm to pack dressed poultry for shipment to retailers. The ice maker produces a ton of ice per day.

Before he purchased the ice maker, White bought his ice from an ice plant.

"With the ice maker, my electric bill has been one third less than what I previously paid for ice. And that covers lights for the entire plant besides."

Bringing in three-phase electrical service for the ice maker was another problem that Shoff had to overcome. There was no three-phase service at that end of town and the utility had to run a special line for a considerable distance to accommodate White.

The utility was reluctant to do this unless White would sign a contract stipulating that he would buy at least \$50 worth of electricity each month for the next five years.

As White used more than this amount for lights alone, he gladly signed the contract.

Purchase and Use of Frozen Foods Shows Increase at All Income Levels

CHICAGO—Purchase and use of frozen foods has increased over the past three years, in all income groups, it was revealed in a survey of 2,545 housewives made by the Research Dept. of Crowell-Collier Publishing Co., and reported to the National Frozen Foods Convention here by Ray Robinson of Crowell-Collier.

As compared with a similar survey made about three years ago, here are the most pertinent facts:

In answer to the question "do you buy commercially frozen foods?" the survey revealed this increase:

| Dec. 1951 | Jan. 1949 |
|------------------------|---------------|
| Buyers | Buyers |
| 84% | 76% |
| Income Groups | Income Groups |
| Under \$2,000 .. 68 | 51 |
| \$2,000-\$3,000 .. 79 | 67 |
| \$3,000-\$4,000 .. 85 | 81 |
| \$4,000-\$5,000 .. 89 | 83 |
| \$5,000-\$6,000 .. 91 | 83 |
| \$7,000 and over .. 95 | 88 |

*1949 income groups are: \$3,000-\$7,499 and \$7,500 and over.

On the matter of the frequency of serving foods, the survey revealed the following:

| Dec. 1951 | Jan. 1949 |
|-----------------------------|------------|
| All Buyers | All Buyers |
| 3-7 times per week .. 22 | 8 |
| 2-4 times per week .. 31 | 31 |
| Once a week .. 27 | 35 |
| 2-3 times per month .. 7 | 11 |
| Once a month .. 8 | 11 |
| Less than once a month .. 7 | 14 |

Families which include one or two children were shown to be the biggest users among classes of family groups.

In families larger than this, the economic factor often precluded greater use. Bigger families may need larger, cheaper packages of frozen foods.

In answer to the question "Have you tried frozen orange juice?" the following was the result shown:

| Dec. 1951 | Jan. 1949 |
|---------------------|-----------|
| Answer "yes" .. 74% | 59% |

On varieties of other juice concentrates tried by frozen food buyers, the following percentages were determined:

| | % |
|-----------------------|---|
| Grape .. 30 | |
| Lemon, Lemonade .. 28 | |
| Grapefruit .. 11 | |
| Blend .. 4 | |
| Tangerine .. 4 | |
| Pineapple .. 3 | |
| Tomato .. 3 | |

Buyers of frozen foods were asked what types they were in the habit of serving:

| Dec. 1951 | Jan. 1949 |
|----------------------------------|-------------------------|
| Types Habitually Served | Types Habitually Served |
| Vegetables .. 90 | 91 |
| Juice Concentrates .. 92 | 19 |
| Fruits .. 46 | 64 |
| Fish .. 30 | 34 |
| Poultry .. 31 | 36 |
| Meat .. 20 | 11 |
| Cooked Foods & Specialties .. 15 | 16 |

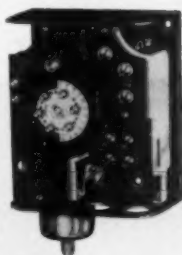
Buyers were questioned on the things that they disliked about frozen foods and frozen food merchandising, with the following answers resulting:

| Dec. 1951 | Jan. 1949 |
|-----------------------------------|-----------|
| Feature | Feature |
| Quantity of Food in Package .. 14 | 10 |
| Cooking Instructions .. 8 | 3 |
| Method of Display .. 7 | 5 |
| Package Design .. 5 | 1 |

*T-P...Time-Pressure defrosting...is the best method for defrosting coils in display cases, self-serve cases, reach-in boxes and other refrigeration equipment maintaining temperatures from 24° to 35° F. and higher. Here's why...

It automatically and correctly varies the defrost period as required...eliminates annoying problem of determining length of shut-down time for proper defrosting under varying load and weather conditions. T-P avoids unnecessary shut-down time by stopping compressor only long enough to defrost...and does it automatically!

Learn more about the PENN Series 325 Time-Pressure Defroster. It's easy to sell. Ask your wholesaler or write Penn Controls, Inc., Goshen, Indiana. Export Division: 13 E. 40th Street, New York 16, N. Y., U. S. A. In Canada: Penn Controls Limited, Toronto, Ontario.



Interior of Type 325. Timer can be set for one to six "off periods" every 24 hours. Length of "off period" varies automatically with frost condition on coil.

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YOU'RE TOP MAN IN A BUYERS' MARKET WITH Servel SUPERMETIC!

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With a wide selection of sizes to draw on, you're sure of "built-to-order" efficiency for every installation: Compact, power-packed air-cooled and water-cooled electric condensing units... ranging in size from 1/2 to 3 HP... each highly simplified, unusually adaptable and featuring Servel's famous built-in lubrication. And to top it all — the unbeatable sales-clincher that's yours with Servel's low-cost, factory-backed Warranty!

Look ahead — stay way ahead — line up with the Servel Hermetic line! Contact your near-by Servel Wholesaler NOW.

WRITE NOW FOR FULL MONEY-MAKING FACTS!

1, 1 1/2 and 2 HP Air-Cooled; also in Water-Cooled Models 1 HP through 3 HP

1/2, 3/4 and 1 HP Air-Cooled Models

1/2, 3/4 and 1 HP Water-Cooled Models

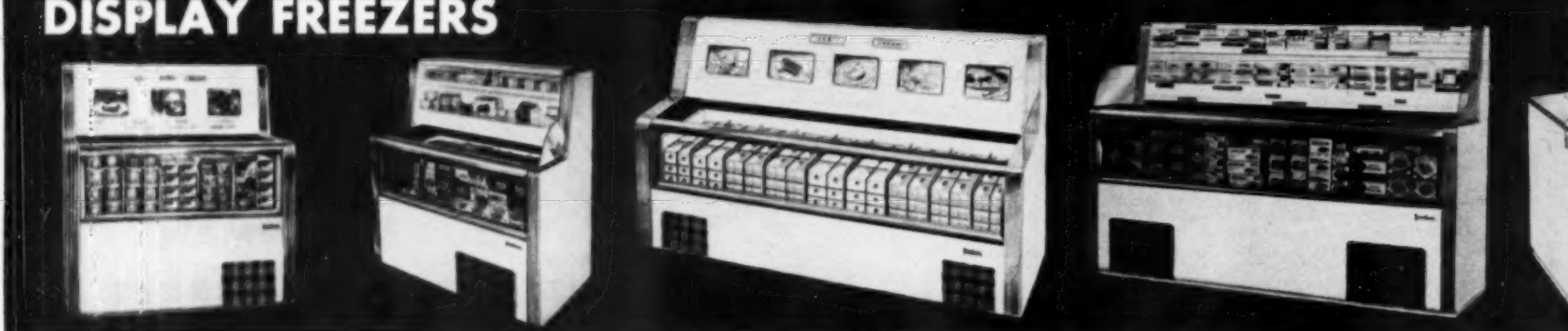
SERVEL, INC., ELECTRIC REFRIGERATION DIVISION, EVANSVILLE 20, INDIANA

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A pioneer in mass production of low temperature equipment, Jordon offers the most complete line in the field. Engineered for top efficiency, smartly styled...with a custom-like variety of items...the Jordon line is a good line, a line that's easy to sell.

Over the years, the Jordon Refrigerator Company has grown from in the refrigeration industry. This phenomenal growth has resulted of capable, experienced personnel, and a foresighted management been . . . to use nothing but the finest and most approved materials stantly toward the development of a better product . . . to pioneer of new items in refrigeration . . . to keep prices at the lowest level quality and dependable service . . . and to make the name JORDON tegrity, quality, and progress.

DISPLAY FREEZERS



OF-9—SELF-SERVICE MERCHANDISER FOR ICE CREAM AND FROZEN FOOD. Open top, glass front. Capacity approx. 120 standard packages. Height 61½"—length 54½"—depth 30½".

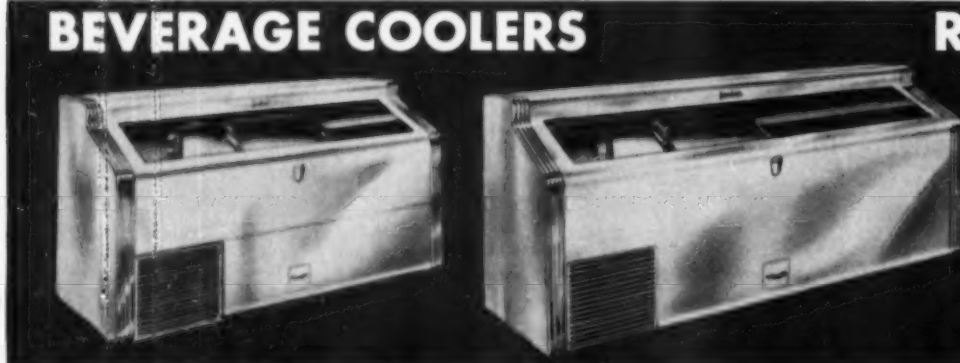
OF-10M—SELF-SERVICE MERCHANDISER FOR FROZEN FOOD. Capacity approx. 360 standard packages with Mart-Type superstructure. Height 61½"—length 54½"—depth 30½".

OF-17—SELF-SERVICE MERCHANDISER FOR ICE CREAM AND FROZEN FOOD. White Hi-Baked enamel exterior. Open top, glass front. Capacity approx. 650 standard packages. Brilliant slimline lighting. Height 61½"—length 91"—depth 30½". Available with picture on Mart-Type superstructure.

OF-18M—SELF-SERVICE MERCHANDISER FOR FROZEN FOOD. Open top, glass front, with Mart-Type superstructure. Capacity approx. 675 standard packages. Height 61½"—length 91"—depth 30½".

M-1
MF
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76"

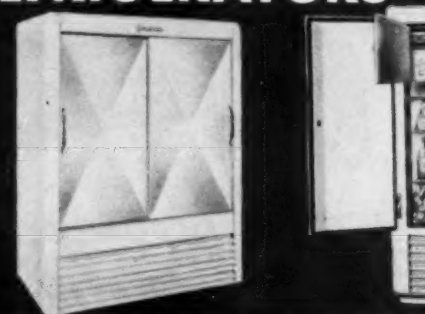
BEVERAGE COOLERS



S40—6'3" DRY BEVERAGE COOLER. Dry Beverage Cooler and ALL PURPOSE REFRIGERATOR. Stainless steel exterior finish. Self-contained unit. Roll-back, disappearing doors. Height 39½"—length 6'3"—depth 29½".

S40—8'1" DRY BEVERAGE COOLER AND ALL PURPOSE REFRIGERATOR. Stainless steel exterior finish. Self-contained unit. Roll-back, disappearing doors. Height 39½"—length 8'1"—depth 29½".

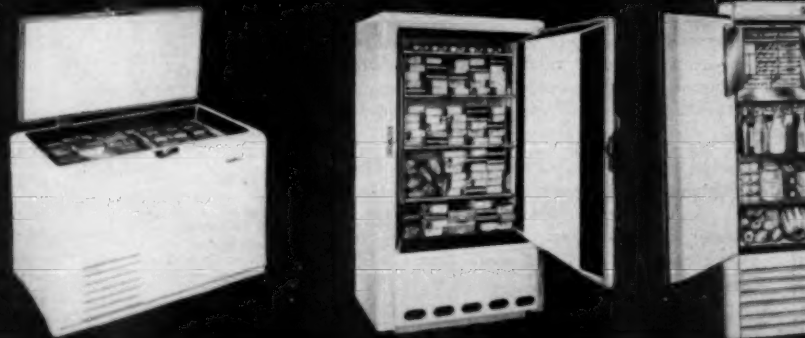
REACH-IN REFRIGERATORS



WC—4½—4½ FT. WALL CASE WITH SLIDING SOLID DOORS featuring Jordon-O-Matic high-humidity blower coil. For storage of dairy products and bottled goods. Available in white Hi-Baked enamel or stainless steel exterior. Natural polished aluminum interior. Height 70½"—length 53¼"—depth 30".

14/6—1
14 cu. ft.
6 cu. ft.
white Hi-
terior. Ho
hardware

JORDON Domestic Line!



TC-15—TOWN AND COUNTRY FREEZER. 14.3 cu. ft. capacity. Concealed hardware, handle with built-in lock . . . Height 36¼"—length 54"—depth 29½".

UF-18—UPRIGHT FREEZER. 18 cu. ft. capacity. White Hi-Baked enamel exterior. All-aluminum interior. Height 72"—length 40"—depth (with door and hardware) 31"—depth (less door) 28".

10/4—TWO TEMPERATURE. 10 cu. ft. normal temperature, frozen food locker. Height 72"—depth (with hardware) 31"—depth (less door) 28".

BETWEEN SALES IS A ~~GOOD~~ LINE!

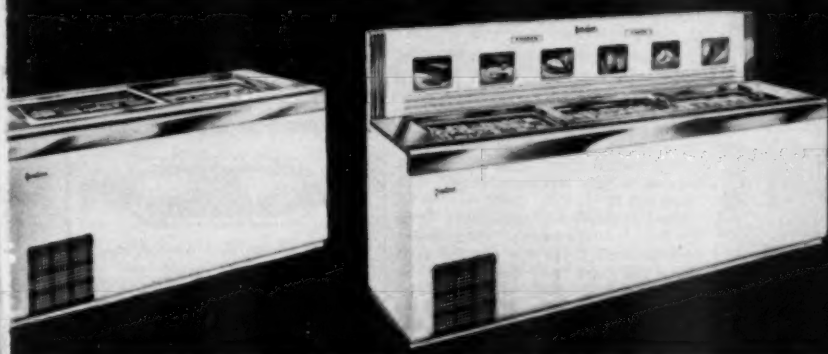
an infant to a giant from a combination whose policy has . . . to work con- in the development consistent with good N a symbol for in-

Today's modern Jordan plant occupies approximately 150,000 square feet, with every square foot

in full operation. Completely mechanized, the plant is designed for highest efficiency, exacting quality control. Freight-loading facilities connect directly to the Pennsylvania Railroad's main line.



DISPLAY CASES

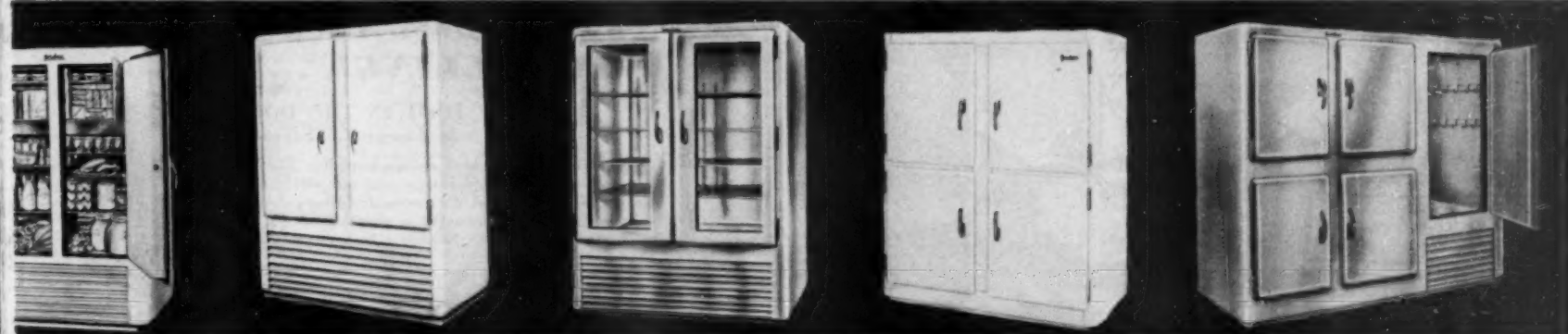


7—FROZEN FOOD AND ICE CREAM MERCHANDISER available with or without superstructure. Sliding glass doors. Capacity approx. 625 standard packages. Height 76"—length 36"—depth 28 1/2".

M-26—FROZEN FOOD AND ICE CREAM MERCHANDISER available with or without superstructure. Sliding glass doors. Capacity approx. 1040 standard packages. Height 36"—length 8'11"—depth 28 1/2".

D-54M—GLASS FRONT OPEN DISPLAY CASE with Jordan "Exclusive Reminder Shelf" for dairy products and related items. Full top opening, three-thickness thermopane display glass. Height 61 1/2"—length 54 1/4"—depth 30 1/4".

WC-4 1/2—4 1/2 FT. WALL CASE WITH SLIDING GLASS DOORS featuring Jord-O-Matic high-humidity blower coil. For merchandising dairy products and bottled goods. Available in white Hi-Baked enamel or stainless steel exterior. Natural polished aluminum interior. Height 70 1/4"—length 53 1/4"—depth 30".



WO—TEMPERATURE REFRIGERATOR—normal temperature refrigerator plus frozen food locker. Stainless steel or baked enamel exterior. All-aluminum interior. Height 70 1/4"—length 43 1/4"—depth (with hardware) 33".

SC-23-IM—23 CU. FT. REACH-IN REFRIGERATOR available in white Hi-Baked enamel or stainless steel exterior. All-aluminum interior. Height 70 1/4"—length 43 1/4"—depth (with hardware) 33".

SC-30-G—30 CU. FT. REACH-IN REFRIGERATOR with Thermopane Glass Doors (also available with solid doors) available in white Hi-Baked enamel or stainless steel exterior. All-aluminum interior. Height 70 1/4"—length 53 1/4"—depth (with hardware) 33".

R-42-JFC—42 CU. FT. REACH-IN REFRIGERATOR for remote installation. Jord-O-Matic Blower Coil. Stainless steel exterior. All-aluminum interior. Height 71 1/4"—length 60 1/2"—depth (including hardware) 33".

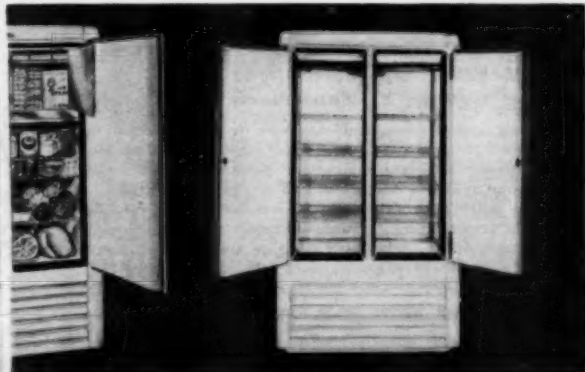
SC-60-H—60 CU. FT. REACH-IN REFRIGERATOR. White Hi-Baked enamel or stainless steel exterior finish. All-aluminum interior, with meat hooks. Height 71"—length 84 1/2"—depth (with hardware) 33".

Write for free catalogue with detailed specifications of full line.

Jordan
AMERICA'S MODERN COMPLETE LINE
JORDON REFRIGERATOR CO.

Factory and Sales Division
58th St. and Grays Ave., Phila. 43, Pa.
BBgrade 6-4510

Dealers: Tear out this sheet and mount on wall for easy reference
March, 1952



W-16—ESTATE MODEL REFRIGERATOR. White all-aluminum interior. Refrigerator plus 4 cu. ft. freezer. Height 67 1/2"—length 37 1/2"—depth (with door and hardware) 29"—depth (without hardware) 26".

W-16—ESTATE MODEL REFRIGERATOR. 16 cu. ft. capacity. White Hi-Baked enamel exterior, all-aluminum interior. Jord-O-Matic Blower Coil. Height 67 1/2"—length 37 1/2"—depth (with door and hardware) 29"—depth (without hardware) 26".



ANSWER FOR 'GYP' OUTFITS CLAIMED BY SERVICE FIRM

Norman C. Muller
Refrigeration Service
223 Foster Park Rd.
Lorain, Ohio

Editor:

I note with interest the Detroit contractors' bellyache in a recent issue. What can they expect in Detroit? Who do they think they are? If they want more work, they are operating in the wrong town. Detroit, in my estimation, is over-ridden with gangsters, in the unions, in politics, and in the refrigeration industry.

With all those "gyps" down at Washington, making it tough for a serviceman, a druggist, the grocer, and butcher, to make a living, I think the least we could do would be to eliminate graft and gangsterism locally.

One of my oldest and best customers remodeled his store about a year ago. He went into Cleveland and bought the store fixtures from a gyp outfit. I fully expected to sell him

the compressors and I was amazed to see six new units shipped to him from my jobber at 15% less than my wholesale price.

It seems the gyp outfit promised him the compressors wholesale if he bought the fixtures from them. In other words they give the serviceman a kick in the teeth to sell a bill of poor quality merchandise.

Did I set the compressors? Why not? I have a special price for these fellows that buy wholesale. I also know how to kick a gyp store fixture outfit in the teeth.

NORMAN C. MULLER

RESEARCHER FINDS GOLD MINE IN 'BOTH FEET'

The National Research Bureau, Inc.
Chicago 10, Illinois

Editor:

Mr. Taubeneck, your book "Both Feet on the Ground" is a gold mine—not only for dealers but editors.

Today, I've been "mining time" and I'm reading your book almost in gulps. Right now I'm in chapter nine, and admit I dislike to take time out to even write. After all—"Where and Who Are Your Customers?"—is the \$65 question with customers clutching closed purses.

RUBY WAKELEY

ENGINEERS PREPARED AIR FORCE MANUALS

Carrier Corp.
Dallas, Texas

Editor:

I have read with interest the articles in the Feb. 25 and March 3 issues of AIR CONDITIONING & REFRIGERATION NEWS giving the highlights of preventive maintenance programs practiced by the U. S. Air Force, as discussed by Mr. William T. Smith of the Air Force Directorate of Installations at the recent RSES meeting in Chicago.

While I agree with the soundness of the material presented, I do believe you should give credit where credit is due. The articles as published give the direct impression that the Air Force Directorate is wholly responsible for the preparation of the technical manuals upon which these preventive maintenance programs are based.

These technical manuals were prepared in the Repairs and Utilities Branch of the Office, Chief Engineers in Washington at the close of World War II, and were edited for conformity with other governmental technical publications at Fort Belvoir, Va. The manuals were later made available to all the Services and Bureaus of the government.

It was the writer's pleasure and responsibility to prepare the basic material for the manuals in this series, under the direct supervision of Mr. James J. Nolan, Jr., at the time we were both serving as technical civilian personnel in the Office, Chief of Engineers.

I trust you will accept this in the spirit in which it is offered.

C. A. BARBECK

END OF TV 'MYSTERY' WINS PRAISE FOR BBB

E. J. Wright Utilities Limited
Strathroy, Ont., Can.

Editor:

Glad to read in March 3 issue of AIR CONDITIONING & REFRIGERATION NEWS that the Detroit Better Business Bureau finally caught up with the House of Television. Now maybe I can listen without hearing the phony mystery melody contest. I often wondered how long it would last.

Congratulations to the Detroit B.B.B., and all of the best to you!

ROGER SPRAGUE

REGIONAL FIELD OFFICES HAVE BID INFORMATION

Willard Sales & Service, Inc.
Philadelphia, Pa.

Editor:

We would appreciate the following information if you are able to supply same:

We should like to know how we could be advised first-hand when there are government contracts coming up for bids, particularly on refrigeration and air conditioning equipment and replacement parts.

We, of course, got this idea from reading the NEWS of which we are regular subscribers and happy to say we enjoy thoroughly from cover to cover.

J. B. JONES

Answer: Information on government contracts coming up for bids as well as data on contracts awarded may be obtained from regional field offices of the U. S. Department of Commerce.

The Philadelphia regional office is located in the Jefferson Bldg., 1015 Chestnut St.

The Commerce Department does not mail out this contract information to individual firms for obvious reasons. The task and cost would be enormous. You could, however, make a daily or weekly visit to the field office to get the data if you so desire.

Once you have submitted a bid on a particular contract, you will be invited to bid on future contracts of a similar nature even though you may not have been awarded the first contract.

If you do receive additional invitations, be sure to acknowledge them

even though you may not wish to bid. If you ignore these invitations completely, you will be dropped from the list, advise Commerce Department officials.

It should be remembered, too, that such invitations will apply only to contracts being let by the particular district office of the government branch involved.

For example, you might bid on an air conditioning job for the Purchasing Division, Philadelphia Quartermaster Depot. You would probably then be invited to bid on any further such installations purchased by this depot, but not by, say, the Picatinny Arsenal at Dover, N. J., or any other government office.

Your best bet is to watch the government contract data in AIR CONDITIONING & REFRIGERATION NEWS every week and check the Philadelphia regional office of the Commerce Department.

MAYBE THE POEMS WILL BOUNCE, TOO

York Corp.
York, Pa.

Editor:

"A banker can write a bad poem, but a poet can't write a bad check!" ... George F. Taubeneck.

I was always under the impression, George, that checks written by most poets were likely to be bad.

WILLIAM C. MOORE

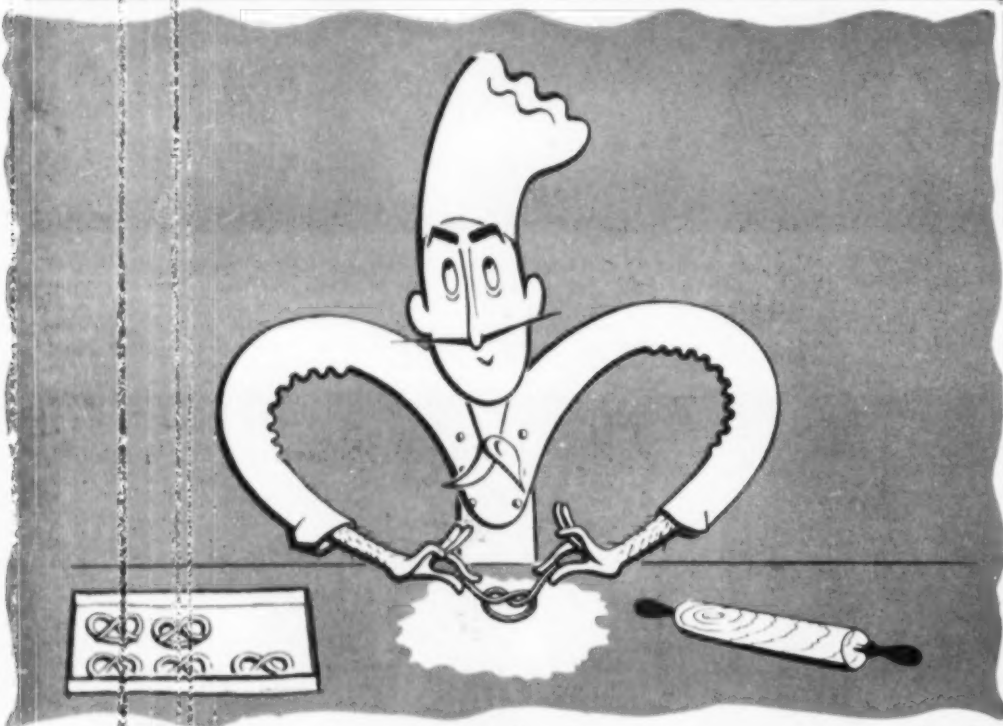
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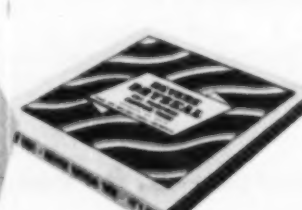
pletely bone-dry and free from dirt. What's more, this seal is made in such a way that it does not change the diameter of the tube. This makes it possible to pass the tube through any opening large enough for the tube itself. Economical tube sizes range from 1/4" to 3/4" O.D.

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BASIC REFRIGERATION CONTROLS

By Service Information Division,
White-Rodgers Electric Co.

All too often the function of a refrigeration control may not be fully understood by the serviceman partly because he may not know exactly how such a control works. Basically, a control is merely a switch equipped with an "automatic hand" to turn it on or off in response to temperature or pressure changes.

The article below is the second in a series prepared by the Service Information Div. of White-Rodgers Electric Co. which carefully outlines in easily understood language basic information on controls.

2—What Makes Control Respond to Temperature

A very good example of hydraulic action is shown in Fig. 4, and should lead to a better understanding of the action of "hydraulic action."

Let us compare the "hydraulic action" element to a standard thermometer. Make note of the thermometer on the left hand side of the picture.

As you already know, any thermometer has a bulb at the bottom of it to hold mercury or some other liquid which is a reservoir for the sensitive liquid. Attached to this is a thermometer stem graduated in degrees to measure heat or cold, ordinarily in two-degree graduations.

The glass stem of a thermometer is ordinarily of comparatively heavy glass with a very minute bore through which the liquid travels from the reservoir.

BULB ONLY IS AFFECTED

It may seem strange, at first glance, that only the bulb of the thermometer is subject to change in temperature.

As has been previously stated, the stem has a very small bore and a small surface and does not have any bearing upon the effect of temperature.

The liquid in a thermometer expands or contracts when a temperature change is felt by the feeler bulb. The temperature change is indicated by the markings of the thermometer stem.

Now for example, let us assume that we can attach a diaphragm on the end of the thermometer stem. We will fill the stem completely with a liquid. When the temperature rises, the liquid will move the diaphragm outward. When the temperature drops, the liquid will contract and the diaphragm will recede. Now instead of reading the temperature on the scale of the thermometer, you can place an indicator on the surface of the diaphragm and the indicator will show the amount the diaphragm

will move for each degree of temperature change that takes place at the feeler bulb of the thermometer.

The amount that the diaphragm moves under each degree of temperature change is a constant. We know this last to be true because we can observe the effect of the expansion or contraction of the liquid in the standard thermometer. For each degree of temperature change the liquid rises, or drops, consistently as is indicated on the markings of a thermometer.

The hydraulic action element shown in the third picture from the left indicates a direct comparison of the element of the thermometer. Here you see the feeler bulb that is sensitive to temperature change, the capillary with its very fine bore that is not sensitive to temperature change, and the diaphragm that is actuated by the expansion and contraction of the liquid.

Now observe the drawing at the extreme right. This diagrammatically shows the relationship of a switching mechanism to the diaphragm. To the extreme right we see the dial of a control. The dial is screwed onto the switching stud and the switching stud contacts the diaphragm. The contact arm is shown extended through the center of this assembly. When the diaphragm expands or contracts, the switch is operated.

It is the relationship of the switching stud to the diaphragm that gives us the setting of this control. It also gives us the calibration of the control. By changing the dial, rotating it, we change the relationship of the switching stud to the diaphragm.

MOVEMENT ALWAYS THE SAME

It was previously stated that the movement of the diaphragm is always the same for each degree of temperature change that takes place at the feeler bulb. Therefore, the point at which the diaphragm will cause the switch to operate will constantly be the same; there will be no drift in the temperature setting.

With the White-Rodgers hydraulic action diaphragm the control adjustment and calibration is obtained by measuring a distance—the movement of the diaphragm. We do not weigh a pressure. There are no springs in this control that have to be adjusted to an extremely sensitive and definite point. The controls using calibrated springs actually weigh a pressure, the pressure necessary to cause the springs to compress or expand to operate a switch.

The hydraulic action element is sensitive to temperature at only one point, the feeler bulb. There are no large temperature sensitive surfaces such as bellows in this control. The large surface area of bellows can be affected by either barometric pressure or altitude.

Fig. 4 shows the switch used in the White-Rodgers control.

The thumbs in this picture are pushing against the switching stud. The switching stud when moved operates the switch. The thumbs are doing just what the diaphragm does in a complete control.

Directly below the thumbs you will see a spring. This spring creates a force opposite in direction to the pressure produced by the expanded diaphragm. The force of the expanding liquid against the diaphragm

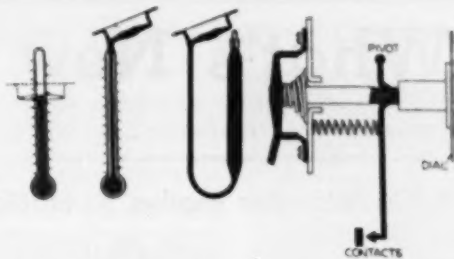


FIG. 4 shows how the "hydraulic action" bellows of a control responds to temperature changes much the way a thermometer does.

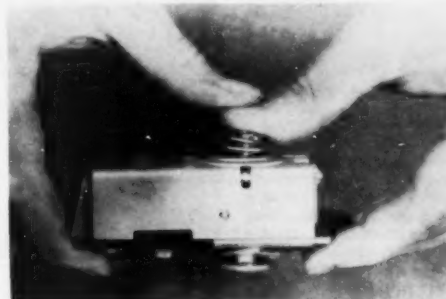


FIG. 5—Thumbs are operating the "switch" part of a control with the same action of a power element.

moves the switching stud in one direction, causing the switch to operate. As the liquid contracts, the spring moves the switching stud in an opposing direction and the switch and stud follow the contact surface of the diaphragm, causing the switch to operate in the opposite direction.

You will find that this is a very heavy spring if you examine the switch closely. If you were to place your thumbs on the switching stud and operate the switch, you would be surprised at the amount of pressure you would have to exert.

(To Be Continued)

SLANTS on Service

How To Make Flooded Type Evaporator Frost Properly

Sometimes an evaporator in an apartment house or a flooded evaporator on a household job will not frost properly. The boiler will frost but not the tubes and fins.

To correct this, pump down the evaporator. Remove the header and float valve that comes with it. Cut copper wire, about 1/4-in. thick the length of the tubes. Insert one of these wires down the inside of each tube and leave it there. Be sure the calibration is correct on the float valve, and reassemble.

The heat travels down the tubes by the copper wire and the oil will not freeze. This allows the refrigerant to flow freely.

Holes In Ice Trays Best Repaired by Hammering

This is the best and surest way to mend holes in aluminum ice cube trays. Get a flat, smooth piece of steel. Put the article you want mended on it. Take a ball-peen hammer and hit around the hole in a smaller and smaller circle.

This will drive the metal towards the hole and close it up. The distance that you start from the hole depends on the size of the hole. A little practice will show you, but you might start at about 1/4 in. away.

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Ethan S. Brown,
Manager



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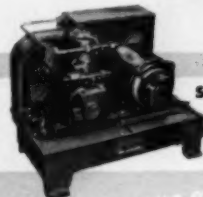
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What's New

When requesting further information on new products, please use "Information Center" form.

Apex Mobile Dishwasher Requires No Installation

KEY NO. B-350

CLEVELAND—Features unique in a mobile dishwasher are incorporated in its new "Roll-A-Way Dish-A-Matic," which requires neither installation nor special plumbing, according to Apex Electrical Mfg. Co.

These features are a built-in, 4-gal. Fiberglass water heater tank, making the unit completely independent of the home water supply; a high temperature (190° F.) rinse; a universal inlet hose which does not have to be fastened to the faucet during the cycle, eliminating need for a permanent faucet connection and freeing the faucet for other use.

The fact that the dishwasher does not require installation or special plumbing is said to make it ideal for apartment dwellers and families who rent their dwellings.

When necessary, the Roll-A-Way Dish-A-Matic can heat its cold water to the predetermined temperature. Thus, it can be used in summer cottages, house trailers, camps, and on boats, where hot water is not available, Apex pointed out.

Other features include a temperature controlled start, automatic lid opening, pushbutton starting, and a new spring-mounted, centrifugal water circulating pump.



Built-in safety features include a safety float switch which does not turn on the 1,250-watt immersion heater unless there is water in the tank and a lid safety switch which shuts off the circulating pump if the lid is opened.

First rinse is at 165° F. For the second rinse, the temperature of the water rises to 190° F. Army, Navy, and health department specifications state, Apex noted, that a 30-second rinse at 190° F. will kill bacteria on dishes.

Fresh'nd-Aire Restyles Model 750 Dehumidifier

KEY NO. B-351

CHICAGO—A complete re-styling of the model 750 portable electric dehumidifier was announced by Fresh'nd-Aire Co., a division of Cory Corp., just 30 days after its entry into the electric room dehumidifier field at the National Housewares and Appliance Show.

The old model gave way to the new during the show as a result of a conclave of Fresh'nd-Aire executives with key Fresh'nd-Aire distributors and department store officials who merchandise and sell the complete Fresh'nd-Aire line of air treatment equipment.

"It was the consensus of these men," said J. W. Alsdorf, company president, "that our first electric room dehumidifier looked too much like a piece of industrial equipment to have a universal appeal to the American buying public."

"We decided, therefore, to redesign the dehumidifier cabinet completely, to make it a really attractive piece of furniture. We also added several features which make for more convenient operation, notably an automatic overflow drain cock and a permanent drain hose connection."

"A length of rubber drain hose will be packed at no charge with each new dehumidifier. The dehumidifier will thus be delivered ready to use anywhere in the house."

"If not convenient to a drain, the 'In-A-Drawer' moisture container can

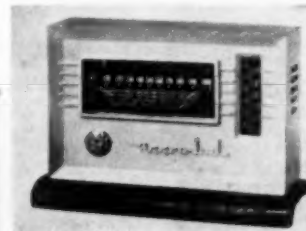


be used, or the unit can be placed over a drain permanently by simply attaching the hose and running it to the drain."

The new cabinet is finished in a decorator's shade of dark gray-green, with cream-toned front grille, to blend in with any color scheme. Weighing just 58 lbs., its small size and carrying handle make it easy to install in any room where excess moisture is a problem.

Less than 2 ft. in height and depth, the new Fresh'nd-Aire dehumidifiers can control excess moisture in areas up to 10,000 cu. ft. They will be in production shortly in Fresh'nd-Aire's Chicago plant at the rate of about 100 units per day.

There is still no increase over the previously announced retail price of \$149.95.



Hygro-dial Gives Humidity, Temperature at Glance

KEY NO. B-352

JAMAICA, N. Y.—A new direct reading humidity and temperature indicator called the Model 186 "Hygro-dial" has been introduced by the Abbeon Supply Co. here.

The Hygro-dial shows at a glance the relative humidity and temperature of the air to which it is exposed. The humidity scale is 2 1/2 in. long and is graduated into equal division covering the range of 0 to 100% r.h. Markings and numerals are satin-finished aluminum on an etched black background.

The humidity sensing element is a multiple strand (9 strands, 3 hairs per strand) made out of human hair and contains a total of 216 in. of fine blonde hair. According to humidification engineers of Bendix Aviation Corp., blonde hair is more sensitive to changes in the atmospheric moisture content than brunet or red hair.

The instrument is uniformly accurate over the entire relative humidity range as compared with former models where distortion was a bad factor at extremes of the scale.

The temperature scale is 1 1/2 in. high and covers a range of 0 to 100° F. Graduation numerals are marked at each 10° interval and is accurate to within 1° at 70° F. and within 3° at the extremes of the scale.

Over-all dimensions are 6 in. long, by 4 in. high by 2 1/2 in. deep. It weighs approximately 9 oz. net. It has a base for standing on a table and also has provision for wall mounting. Price is \$18. It is packaged in a blue box with silver printing.



250-Amp. 'Chromaster' Added by Ward Leonard

KEY NO. B-353

MOUNT VERNON, N. Y.—A 250-ampere "Chromaster" unit has been added to Ward Leonard Electric Co.'s new line of industrial chrome plating equipment.

This new production tool is designed for industrial chrome plating small tools or parts in large quantities, or generous size parts with areas to 125 sq. in., the company said.

With Chromaster and "Chromasol," a new chrome plating solution, normal life of cutting tools, wear parts, and dies "can be increased up to ten times," it is claimed by the manufacturer.

Individual floor-mounted plating tank and power unit are designed to minimize installation costs and to conserve plant floor space. Power unit contains a built-in selenium rectifier complete with instrument panel and controls for accurately regulating the rate of chrome deposit, according to Ward Leonard Electric Co.

Industrial chrome plating with Chromaster and Chromasol is described as "fast, economical, and simple in operation."

Specifications show average plating time is 3 1/2 minutes for cutting tools; chrome cost averages just a few mills in most applications; complete operation requires only five basic steps."

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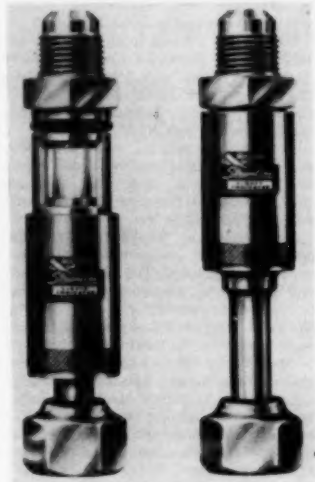
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What's New (Cont.)

Liquid Indicator Has Sight Soldered to Body



KEY NO. B-354

PORT HURON, Mich. — A new straight-through type liquid indicator that features a sight glass cylinder soldered directly to the brass body has been introduced by the Mueller Brass Co. here.

Called the "Quik-Sight" liquid indicator, the instrument also is equipped with a sliding brass sleeve that covers the sight glass when not in use to protect it from breakage. Two "O" rings in the assembly form a positive seal against dust, dirt, and oil film when the sleeve is closed.

A glass-to-metal soldering technique joins the sight glass cylinder and the brass body. This leakproof design permits the use of extra-large window areas so that the user can tell at a glance whether there's a shortage of refrigerant or a restriction in the line. And it allows an uninterrupted straight-through flow of refrigerant without pressure drop.

The glass-to-metal soldering provides a thoroughly tight, seepage-proof seal, the company says, and eliminates the need for gaskets and threaded joints that often work loose with vibration. Temperature changes

encountered in a refrigerating system won't affect this solder seal. The design of the indicator allows for thermal expansion through the whole assembly without strain.

Wide wrench flats make it easy to get connections good and tight, the company adds. A swivel connection on the flare end further simplifies attachment to valves, driers, or line, because it eliminates all twisting strain on the indicator assembly during installation.

The valves are made with either 1/4 or 3/8-in. flanges.



Soda Fountain Unit Has Big Storage Compartment

KEY NO. B-355

GRAND RAPIDS, Mich. — The Grand Rapids Cabinet Co. has announced a new streamlined design full storage fountain unit with two large refrigerator doors on operator's side opening into dry refrigerated, stainless steel lined storage compartment.

Storage compartment can also be reached through twin lid on top. Pure corkboard insulation, one-piece die stamped top, and instantaneous dry soda and water cooling system are used.

This unit, the SF-60-B2, is designed to be used in conjunction with ice cream sections, and provides large clear working surface at each end of the top.

Niagara Announces Improved Concentrator

KEY NO. B-356

NEW YORK CITY—Niagara Blower Co. announced that it is building an improved model concentrator for the drying agent used in the company's controlled humidity method of air conditioning.

"This method," Niagara Blower explained, "uses a drying agent to absorb moisture from air directly, reducing humidity without refrigeration. Therefore it is applied to increase the performance of existing air conditioning systems as well as to processes and industries where materials are dried or protected from atmospheric moisture—foods, chemicals, lithography, textiles, metallurgical, electronic, and other apparatus and instruments."

"The drying agent is a liquid (Hygro) which has hygroscopic properties that afford control of the relative humidity of the area or process that is conditioned. As it is diluted by the moisture it absorbs, a part of the liquid is pumped to the concentrator. In the concentrator this moisture is continuously removed so that the air conditioning is always operating at full capacity."

In the new model, the company said, the diluted liquid is sprayed into an air stream over heating surface which raises its temperature, evaporating the water from it. The air stream then passes through eliminator plates which remove the liquid drops.

Then, in a second stage, it passes over a cooled reflux coil which raises the relative humidity in the chamber, condensing the absorbent vapor.



In the third stage (the "economizers") it passes through filtration cylinders each of which contains a fog nozzle. Here, the building up of very high humidity completes the condensation of the absorbent liquid and its droplets are caught by the filters while the moisture laden air passes through. The re-concentrated absorbent drains to the tank in the base, from which it returns to the air conditioning unit, completing the cycle.

Using this method, which is patented, the consumption of liquid absorbent "has been reduced to a point where it is of no importance in practical operations," Niagara Blower stated. "It is successfully applied to a large scale air conditioning and drying systems involving high concentrations."

Squaring Shears Use Air From 70-80 P.S.I. System

KEY NO. B-357

BUFFALO—A new economy line of air power squaring shears for sheet metal shops has been announced by the Niagara Machine & Tool Works here.

Air from any system found in the average shop with pressures of 70 or 80 p.s.i. can be used. For shops without air, a small compressor and surge tank will suffice.

Depressing the foot valve automatically clamps the hold-down and lowers the crosshead to complete the cut. Releasing the foot treadle instantly returns them to top position. A flexible air hose for the treadle permits the operator to trip the shear from any convenient location.

All main components are formed from welded steel plate designed to give maximum strength and rigidity, insuring accurate straight line cutting without twist, spring, or deflection.

Adjustable ways are made from non-metallic laminated plastic to avoid scoring and cutting and to hold wear to a minimum. The hold-down gives clear visibility of the cutting line.

A quick adjusting back gauge is standard equipment on the smaller sizes. A micrometer, ball bearing, double bracket parallel back gauge graduated in 1/32 in. is featured on the 8 and 10-ft. lengths.

In addition, all machines are furnished with front brackets, a long front gauge bar, and two side gauges.

Information Center

For more information on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products advertised and we'll see that you receive this information promptly.

What's New or Current Literature Available

| | |
|--------------|--------------|
| Key No. | Key No. |
| Key No. | Key No. |
| Key No. | Key No. |
| Key No. | Key No. |

Products Advertised
(list name, page, and issue date)

(PLEASE PRINT PLAINLY)

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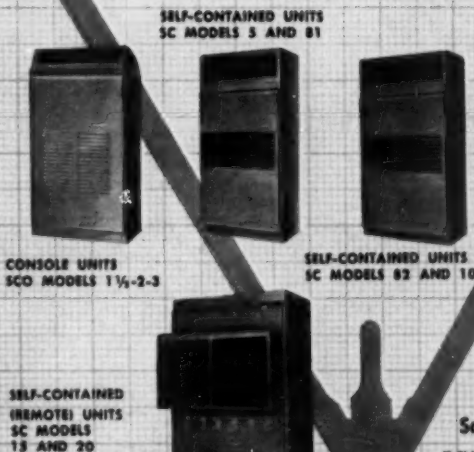
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Current LITERATURE available

To obtain further information on the literature listed below, please refer to key number preceding listing. Please use the "Information Center" form on "What's New" page.

Sprague Catalog Lists New Capacitor Developments

—KEY NO. N-350—

NORTH ADAMS, Mass.—New motor capacitor types in both metal and plastic cases, new speedy-change terminals, smaller capacitor sizes and complete listings of replacement units for 155, 160, 320, and 320-volt as well as 110-volt service are among the new developments included in the Sprague Products Co. Catalog C-907.

Handy tables included in the catalog give complete data for choosing the correct replacement capacitor for practically all leading makes of refrigeration equipment. A small stock of Sprague universal replacement motor capacitors supplies replacement units for a big percentage of this equipment.

Likewise included in the catalog is a complete listing of hardware, available from stock, that fills practically any motor capacitor mounting requirement.



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News for
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There are over
**TEN
MILLION**
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IN USE TODAY!

*and here is what it
means to you...*

These 10 million Tecumseh compressors in the field, attest the acceptance Tecumseh has built in the industry. Proven dependability under all field conditions has led more and more manufacturers to incorporate the Tecumseh hermetic in their cabinets. Today two out of three manufacturers of nationally advertised household refrigerators use the Tecumseh hermetic and better than 2,000,000 units are being produced yearly. You can use these facts to prove the experience and reputation behind the compressor in the refrigerator you are selling to the customer.

The Tecumseh hermetic is exactly engineered to the particular cabinet in which it is installed. This is usually the result of many months of careful engineering tests to make sure it will give long, dependable service. Our engineers, concentrating on compressor design only, work closely with more top engineers and production men in every branch of the industry than any other manufacturer. Long experience in compressor design and production plus this daily contact with the best brains in the industry make the Tecumseh hermetic the last word in compressor design.

Further, rigid inspection is maintained at every stage of production to be certain that every Tecumseh compressor will meet the same exacting standards of quality. The shells are perfectly welded together to eliminate most outside causes of trouble and generally incorporated into household refrigerators as a complete system. The soundness of this practice is proven by the small percentage of field failures. Field returns under warranty average less than 1% per year for completely sealed systems and practically none fail for mechanical reasons. This is a remarkable record considering the fact that they are sold to more than 200 different manufacturers.

Elimination of service calls under warranty saves you money and helps satisfy customers with their purchase. Take full advantage of the selling points of the Tecumseh hermetic and point out these facts when talking to your customers.



TECUMSEH PRODUCTS

TECUMSEH, MICH

Company

EXPORT DEPT.: 3111 WOODWARD AVE., DETROIT, MICH.

Brochure Covers Plan for Disposition of Records

—KEY NO. N-351—

NEW YORK CITY—"A Basic Plan for Record Retention and Destruction" is the subject of a new brochure released by Remington Rand Inc. to aid management in the intelligent planning for disposition of records at the time they are created by destruction of useless records and the economical, safe storage of those that must be retained.

This 24-page "handbook for management" covers such subjects as "Classification of Business Records," "Efficient Record Handling Can Save Money," "How To Organize A Retention Plan," "Record Retention Can Start Today," "How To Operate A Retention and The Tools for Effective Record Retention." Included is a case history of a record retention program of a large utility corporation.

Profusely illustrated, with actual reproductions of various forms used for record retention and destruction, the handbook contains a checking chart listing the various types of records, and the time element for their retention.

Refrigerated Fruit Storages Covered In Frick Booklet

—KEY NO. N-352—

WAYNESBORO, Pa.—A booklet entitled "Refrigerated Fruit Storages" has been published by the Frick Co. here to illustrate the advantages of the Frick system of air conditioning a storage.

Devoted particularly to apple storage, the eight-page booklet pictures numerous Frick installations in this field and outlines the growth of that market. The booklet is labeled Bulletin No. 146-D.

Newspaper, Folder Help Sell Adequate Wiring

—KEY NO. N-353—

NEW YORK CITY—Two new "personal" and consumer pieces have been produced through the joint efforts of the National Adequate Wiring Bureau and the NEMA Farm Electrification Bureau as informational and sales tools for rural electrical dealers.

Both are aimed at helping dealers understand and overcome the inadequate wiring bottleneck to present and future sales of farm and home electrical equipment.

The "for dealers only" publication is an eight-page tabloid newspaper called the *Farm Market Reporter*. The paper is full of case histories by and about electrical dealers "who learned the hard way that an adequate wiring system is necessary for the efficient operation of the equipment they have to sell," the bureau said.

Thousands of copies of this publication are being distributed without charge to power suppliers, electrical manufacturers, and national and local electrical organizations to be placed in the hands of rural electrical dealers. The publication is

claimed to be unique in that it enables dealers to sell other dealers on the need for and the advantages of an adequate wiring system.

Those desiring to order quantities of the tabloid paper may do so by addressing requests to either of the cooperating bureaus.

The consumer piece, headed "Dear Folks" is designed to help dealers "talk" about adequate wiring to customers in a non-technical, informative way. It sets forth the "symptoms" of and the "remedies" for inadequate wiring systems.

Copies of the folder are \$1.10 per hundred, plus postage. The folder is designed as both a hand-out piece and as an envelope stuffer.

Folder Tells How Brush Alodine Protects Aluminum

—KEY NO. N-354—

AMBLER, Pa.—A new descriptive folder on "Protection for Aluminum" with "Brush Alodine" has been issued recently by the American Chemical Paint Co. here.

The folder describes the Alodine and its application with hand equipment. This chemical has recently been made a standard stock item by the Navy for use in maintenance of aluminum equipment at all Naval bases, the company said.

Westinghouse Announces Teaching Aids Handbook

—KEY NO. N-355—

MANSFIELD, Ohio—A new 36-page teaching aids handbook that covers the selection, operation, care, and use of electric home appliances was reported today by Mrs. Julia Kiene, director of the Westinghouse Home Economics Institute.

Called the Electric Home Appliances reference manual, the booklet describes how to select the models best suited for family needs and how to use all the new advantages the latest designs offer.

Procedures are given for the care and use of appliances for efficient operation and longer life. All types of available home appliances are discussed.

Basic electricity, its distribution and measurement in the home, is explained in simple, non-technical terms. The new booklet outlines the essentials of good wiring and points out how a well-planned wiring system is necessary to achieve the full benefits of electrical living.

Copies of "Electrical Home Appliances" (booklet 1CE-0204) are available at five cents each from Westinghouse Electric Corp.

1952 Product Catalog Baltimore Aircoil Issues

—KEY NO. N-356—

BALTIMORE—The new 1952 Baltimore Aircoil Co., Inc. catalog, recently published, includes complete descriptions, dimensions, and selection charts for their new and expanded line of evaporative condensers and cooling towers, the company has announced.

1952 Guide Issued by ASHVE Contains New Data

—KEY NO. N-357—

NEW YORK CITY—The 1952 edition of The Heating, Ventilating and Air Conditioning Guide, published annually by The American Society of Heating and Ventilating Engineers, was recently issued.

The 30th edition has a total of 1,520 pages. Thirty-two pages of new data have been added to the 1,064-page Technical Data Section which contains technical and design information on 50 subjects.

The entire volume has been reviewed and important revisions have been made throughout. The chapter arrangement of the past two editions has been retained.

New codes of interest and latest editions of all codes have been included in the enlarged list of codes and standards. Names and addresses of organizations which can supply the codes and standards are listed for convenience in obtaining copies.

One of the special features of the guide is the larger catalog data section which contains accurate data and specifications on the latest products of the 277 manufacturers whose catalog data can be found on pp. 1,099-1,485.

Special improvement will be found in chapters on heat transmission coefficients of building materials, heat transfer, heating load, cooling load, industrial air conditioning, air cleaning, and refrigeration.

Copies of the volume, priced at \$7.50 each, are available through ASHVE headquarters here.

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April 21, Advertising closes April 11

AIR CONDITIONING & REFRIGERATION NEWS
450 West Fort Street, Detroit 26, Michigan

Commercial Refrigeration

Frozen Citrus Concentrates

Storage at 0° F. Found To Be Essential To Assure Consumer Top Quality Product

CHICAGO—Storage temperatures of 0° F. or below are absolutely essential if frozen citrus concentrates are to reach the consumer in top quality condition. W. R. Roy, director of research for the Minute Maid Corp., told the National Association of Frozen Food Packers here recently.

"As a result of constant vigilance at the plant level," he stated, "it is improbable that any poor quality product finds its way into distribution channels."

"Since frozen citrus concentrates are not customarily subjected to heat treatment any time during the processing cycle, preservation of quality in the interval between production and consumption is entirely dependent on storage, distribution, and handling at the proper temperature levels."

He noted that at 0° F. and below no deterioration has been found in any of the factors used to judge quality for periods up to a year.

FACTORS SUBJECT TO DEGRADATION

Those quality factors subject to degradation when concentrates are stored at improper temperature are physical appearance (gelation and separation), flavor, ascorbic acid content (vitamin C), and bacterial degradation.

"The principal enzyme contained in citrus juices," Roy explained, "is known as pectin methylesterase. This enzyme breaks down the pectin which all citrus juices contain. Such decomposition results in a degraded pectin and causes 'cloudbreak' or separation of the juice."

"If the concentrate contains a relatively active enzyme, and if it also has a high pectin content, it will often form a gel in the can. When this gelled material is removed from the container, it will appear similar to apple or grape jelly, with varying degrees of rigidity. When a gelled concentrate is reconstituted with water in the usual manner, it will invariably separate completely."

"C. W. DuBois and T. J. Kew have shown that the degree of separation exhibited by concentrates after abuse is a result of improper storage temperature and length of time of exposure to that temperature."

"They have also pointed out that once separation has occurred it is irreversible, even though proper temperature conditions are restored afterwards. The damage has been done."

Roy noted that there is considerable variation in enzyme content from year to year, and between varieties, and consequently in resistance to separation.

"The amount of gross visible pulp influences the separation rate," he went on, "the higher the pulp content, the greater the tendency toward separation. The consuming public demands a visible pulp content. However, a pulpless juice, while stable to a much greater degree, would probably be rejected by the consumer."

HIGHER THE TEMPERATURE, LONGER THE TIME, GREATER THE DAMAGE

"It can be concluded that damage is done to the products at any temperatures of storage higher than 0° F.; the higher the temperature the greater the damage, and the length of exposure to such temperatures greatly amplifies the extent of the damage."

"It must be emphasized that separation of frozen concentrated citrus juices is the subject of more complaints than any other one factor. The consumer is emphatically prejudiced against any product of this kind if it is abnormal in appearance due to separation, and more often than not rejects it 'down the sink' as a spoiled product without subjecting it to flavor evaluation."

"In concentrates stored as long as one year at 0° F. or lower, there is no discernible change in flavor. At higher temperatures, up to 45° F., any flavor degradation depends on temperature and length of exposure. Separation . . . occurs before the product suffers a noticeable flavor change, although juices which have undergone separation are often described as 'thin' or 'watery' because of viscosity decrease resulting from pectin degradation."

ROOM TEMPERATURE STORAGE LEADS TO FERMENTATION

"At temperatures above 45 to 50° F., bacteriological growth causes development, in time, of fermented flavors. If the product is held for two to three days at room temperature, fermentation will cause evolution of sufficient carbon dioxide to swell and burst the can."

"Curiously enough, when concentrate is held at low temperatures, the number of bacteria decreases, because of the low pH of orange juice, concentration of the fruit sugar, which causes plasmolysis, and the slightly bactericidal action of citric acid."

"Since orange juice and other citrus juices are recognized as outstanding natural sources of ascorbic acid (Vitamin C), many studies have been made of the behavior of this vitamin under varied conditions of storage. . . . The following summarizes the findings:

"1. The loss of ascorbic acid in frozen concentrated orange juice held at 0° F. for 12 months is from 0 to not over 2%."

"2. The loss of ascorbic acid in concentrate held at 40° F. for six months is less than 10%."

"3. Ascorbic acid in concentrate is

much more stable than in single-strength juice held at the same temperature and the same length of time. In fresh fruit a 12% loss of ascorbic acid takes place in the usual handling."

"Fruit juice concentrates, because of their high content of dissolved solids, exhibit a greatly depressed freezing point. In addition, the freezing point is not sharp, but is progressive over a wide temperature range."

"For example, 42° Brix orange concentrate begins to 'slush-freeze' at 18° F., and does not become truly solid until a temperature of -5° F. is reached, although it apparently is frozen solid at 5° F."

"The net effect of this range of freezing is two-fold:

"1. The greater enzyme activity at low temperatures, in contrast with other frozen foods which are essentially frozen solid at comparable temperatures, is probably due in part to the greater motility of the mass as a whole."

"2. Slowness in lowering temperatures in the 18° F. to 0° F. range is due to the wide temperature range of latent heat in freezing. This effect is particularly apparent in concentrates which have inadvertently thawed or have reached temperatures above 0° F. during handling when they are restored at 0° F. storage, in which lowering of the temperature again to 0° F. is exceedingly slow."

"Loss of temperature and retention of the product for very short periods (1 to 2 days) of, say 10 to 15° F., does not appreciably injure the product. However, recovery of temperature is very slow."

TERMINAL STORAGE WAREHOUSE CAN HOLD 0° F.

"Most terminal storage warehouses are designed to 'hold' such a product at 0° F. provided it enters the warehouse at 0° F., but not necessarily to reduce the temperature to 0° F. of a product entering at higher temperatures. Obviously it requires much more compressor capacity to freeze than to hold."

"Space in frozen storage warehouses is valuable. As a result, cartons of concentrate are usually stacked in the cold storage rooms in solid stacks. The innermost cartons of such stacks, completely insulated on all sides by four or five cartons of product, are reduced in temperature very, very slowly."

"Thus if concentrate is allowed to warm to 15 or 20° F. in a day or so while in transit, and subsequently stored at 0° F., some of the product in the center of the stacks might take weeks to return to 0° F. During this period degradation could occur to a measurable extent."

STEPS BEING TAKEN TO MAKE CONCENTRATES LESS SUBJECT TO DAMAGE

Roy concluded his talk by outlining what steps the frozen concentrate industry is taking to make a product that will withstand more abuse than the present concentrate will take.

"Some producers of frozen concentrate," he said, "are conducting educational programs in an effort to teach shippers, warehousemen, distributors, retailers, and consumers the limitations of the product and best methods of handling it."

"Cooperation has been given carrier agencies in their research aimed at developing equipment designed to transport frozen foods at zero temperatures. Satisfactory low temperature truck and rail units are now being used in increasing numbers."

"Work has been done and is being carried on to determine if heat at low level can be used to inactivate enzymes sufficiently to yield a more stable product without causing development of off-flavors. Most of this work is being done in the 140 to 180° F. range."

"Other research involves treatment with high frequency, high voltage electrons, use of ultra-sonic waves, and treatment with waste fission products to aid in stabilizing the concentrates."

"Some progress is being made in stabilizing the products. Even if the industry succeeds in making a more stable product, however, the consumer will be assured of the best possible quality if the product has a history of zero or sub-zero storage from plant to table."

Frozen Food Packers To Meet In Chicago In '53

CHICAGO—The Conrad Hilton hotel here has been chosen as the site of the 1953 National Frozen Foods Convention, according to C. L. Snively, chairman of the 1953 Convention Committee.

Snively, newly elected president of the National Association of Frozen Food Packers, stated that the 1953 convention is scheduled for the first week in March.

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Service Operation

Small or Large, Each Company Must Have Sound Basic Organization
To Succeed—Here Is How a Large Detroit Firm Operates

DETROIT—“No service company can expect to operate entirely on a c.o.d. basis. If you can get 95% of your business on c.o.d. you're better off. But on credit you should watch general conditions, for they can change. A few years ago, for example, there were an excellent credit risk. Now they're not.”

“Big industrial accounts are usually good risks if you can wait awhile for your money. But here be sure to get authorization from the right man in authority and get a purchase order number.”

These were a few of the suggestions on how to make refrigeration and air conditioning service pay that were offered to the Detroit ASRE section by Jack M. Baragar, general manager of Johnston Refrigeration Sales Co., whose allied firm is probably the largest independent service contracting organization in the Detroit area.

“The service invoice is very important, especially to the small firm. A big company can fight a disputed bill in court but the small service firm can't afford to. Get the invoice signed by the customer and make certain it contains all pertinent information,” advised Baragar. “Only recently we were told of a court case decided in the contractor's favor because he had an invoice signed by the customer.”

Discussing the organization of a

service company, he pointed out that “service firms vary greatly in size but their operation, if successful, follows a similar pattern. Large companies employ more men and cover more territory. Of necessity, they must break down their operation into more detail and provide closer control than would a one or two-man shop. The bigger the outfit, the more places for profit to get lost.”

1 NON-PRODUCTIVE MAN FOR EACH PRODUCTIVE ONE

“What is needed in the way of manpower? Actual figures show that it takes one non-productive employee to handle three productive men in the field. When you attempt to spread this man too thin, he cannot keep up with the work involved, and costly mistakes plus decreased efficiency in service will result,” cautioned Baragar. “To go the other way is, of course, foolish and uneconomical.”

An organization chart that was “developed over a number of years through trial and error and is now providing highly successful in serving up to 6,000 calls a month” was shown as reproduced here.

“Note that this has seven departments: shop, parts, installation, commercial service, domestic service, service sales, and accounting, each having a foreman or manager and all except the last reporting to the

operations manager. This arrangement permits the technical end of the business to function as it sees fit, looking to accounting only for guidance in such things as finance and credit.”

“A good accountant cannot supervise installation and service,” commented Baragar. “We found that out a long time ago.”

“Management personnel must have a thorough knowledge of this business plus a likeable personality and the ability to deal with employees and customers of all types quickly, courteously, and efficiently. Make a careful selection from your own organization first, if possible, but do not hesitate to fill your needs from an outside source if necessary.”

“If you can't get a good man who can supervise both domestic and commercial service, for example, split the jobs as we have done.”

“If you pick the right man, most of your management problems are solved. He will not come cheap,” warned Baragar. “If he's good, he knows his value and you'll have to pay him accordingly.”

“It would, of course, be desirable to have in each of the servicemen all the qualifications of your service manager. However, you and I both know that this is impossible. In fact, if you have such a man in your group you had better promote him quickly because if you don't he will soon be working for someone else or be in business for himself and giving you lots of competition.”

LET EACH MAN WORK WHERE HE IS BEST SUITED

“We have found it desirable and profitable to classify each man and then let him function accordingly. For instance, you may have a cracker-jack mechanic who solves the problems and corrects all the trouble but he cannot collect on a c.o.d. call. Don't fire him; put him to work on charge or warranty service where he does not have to collect for work done.”

“Another man might not be proficient at his trade but has the ability to learn. Assign him the easier calls. Encourage him to improve his knowledge. Let him gain confidence and know-how, and he someday will prove his worth.”

“Still another man I know of,” Baragar recalled, “is an excellent mechanic, neat appearing, and very trustworthy. However, he will not be pleasant to customers. There is only one place for him—the installation crew where he has no direct contact with anyone except his foreman.”

‘MUSTS’ FOR A GOOD SERVICEMAN

“Musts for every serviceman are honesty, basic knowledge in refrigeration, and loyalty. If there is someone in your group who does not have these three things, you should get rid of him. Don't tolerate dishonesty, stupidity, and disloyalty.”

“We have found it very profitable to promote the welfare and knowledge of our men by having the service manager run schools in the slow periods. We let the men participate by assigning them topics to discuss. Encourage your men,” he suggested, “to become members of groups dedicated to promoting the sciences and knowledge of our industry. All of these things properly applied will



Service & Supplies

knit together for you a workable and profitable service group.”

STEP BY STEP IN HANDLING A SERVICE CALL

To outline how a large organization handles service, Baragar briefly traced a call from its inception to completion.

“The call receiver is courteous, of course, and seeks all information in the first conversation such as name, address, telephone number, date, nature of complaint, type of service, make and model of refrigerator, installation date, warranty information, and, most important of all, arrives at an understanding with the customer as to rates and c.o.d. charges, if they apply.”

“General files by address kept up to date quickly show what service has been rendered, when, what was done, who did it, and the type of equipment. This information is abbreviated on the call slip by the ‘lookup’ girl, and after credit is checked, the slip is returned to the dispatcher.”

“The dispatcher then zones the call and gives it to the serviceman in order of its importance rather than receiving time. The reason for this is obvious,” Baragar explained. You may have a freezer full of meat that's down. This would get priority over a mere noise complaint.”

“When the service call is completed to the customer's satisfaction, the service work order properly executed and signed is turned into the dispatcher for his check-off and okay. He codes it. From here it passes to the service manager who checks it further for time, service rendered, etc. From this point the billing copy goes to accounting for disposition, and a file copy is put in the general files for future reference.”

INSIST ON PROMPT PAYMENT OF ACCOUNTS

“As for billing, be sure that all accounts receivable are paid promptly when they fall due. If they are not, don't hesitate to find out why. You may find your customer is withholding payment because he is not satisfied. If this is the case, waste no time getting it corrected to his satisfaction. You harm your reputation, not to mention your pocketbook, by letting it drag out too long.”

“While these various operations may seem insignificant in themselves, combined they spell economy and profit in your organization,” Baragar emphasized.

Other phases in operating a service business involve such problems as warranties, maintenance contracts, and the like, it was pointed out.

“In our opinion, every piece of equipment you sell should have in the sales price a fund, to be held in reserve, that enables you to give your customer a one-year guarantee that gives him complete coverage on any service required.”

“The amount of money held aside is determined by three things: volume, past service experience, and location. The greater the sales volume, the more money you'll need in reserve to see you through. Experience may show you that service has been exceptionally light, permitting you to reduce price. It naturally costs less to service equipment close by, so location is also a factor.”

“This reserve money must be set up as a separate fund, divided into twelfths. Each month one twelfth should be entered in your books to be applied against expenses incurred for this contract. Remember, you haven't earned this money until the warranty time has expired. You only invite trouble if you use it in advance. You're only kidding yourself if you put the money in your pocket.”

“Another source of income that can prove very profitable is the soliciting of maintenance contracts on equipment out of the one-year guarantee,” suggested Baragar.

“There are two types currently specified: one where labor only is covered, parts not being included; the other which gives complete coverage of labor and parts. The latter has proven much more satisfactory to the customer, and he is usually willing to pay the price difference to get complete insurance on his equipment.”

“The ‘labor only’ deal isn't so good. Suppose the serviceman makes the monthly check and then three days later a valve goes bad. The customer will not be satisfied if he has to pay \$18 for an expansion valve then.”

“Price of the contract is determined by horsepower, number of fixtures, type of fixtures, age of equipment, and its general condition.”

(Concluded on next page)

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- directional flow** - eliminates costly spillage.
- re-circulated air** - cuts case running time up to 15%.

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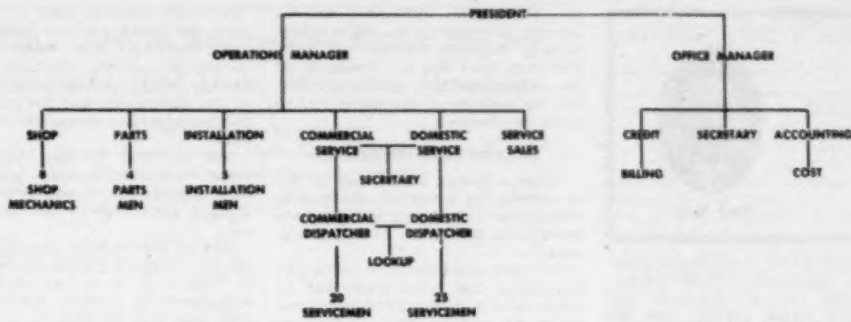
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3. absorb cost of loss leaders or special sales
4. extra profits from these savings.

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SHERER DISTRIBUTORS SELL MORE BECAUSE THEY HAVE MORE TO SELL





ORGANIZATIONAL CHART for large service company. This chart is for operation of a firm that handles up to 6,000 calls per month. Although a smaller organization would have less manpower, the same over-all organization is necessary.

Reserve Fund To Cover 1-Year Guarantee Should Be Included In Each Sale Price

(Concluded from preceding page)
Don't go for old equipment," he warned. "Each system must be carefully inspected and put in first-class running order before the contract is signed."

On this point Baragar was questioned whether a customer had ever refused to take the maintenance contract after the servicemen had inspected and fixed up the machine in the expectation of getting such a contract.

"No, we've never run into that. Maybe it's a matter of sales psychology. Instead, say, of offering to fix up the equipment for \$120 and then provide a year's service for another \$60, you should tell the customer that for \$180 you'll put the installation in first-class condition and keep it running for a year.

AVOID MONTHLY PAYMENTS ON CONTRACTS

"Make all contracts payable in full in 60 days or less. Monthly payments will get you in trouble. An example of this would be the system that gives considerable trouble the first two or three months and then the owner stops payment. The result is a red figure.

"A word of warning: if you decide to go after this type of business try for volume. Just a few accounts will not prove profitable. Set up only four inspections a year. It is not necessary to give monthly inspections if the equipment is in good running order. Also, see to it that your maintenance contracts get fast, prompt service when it is required. Give your customers confidence and you have an excellent sales potential when they buy new equipment.

"A number of companies are engaged in rendering factory warranty service to customers of national brand domestic refrigerators. This is

also a profitable venture providing you take into account the following: large investment required in inventory (some of which you'll write off as a loss because many parts become obsolete in a year); office work required to set up warranty records, and the necessity for continual policing of dealer sales.

"Be sure to investigate thoroughly the volume you will get in your locality, the quality of the product, and the policies of the company to whom you will be obligated," Baragar urged.

"It would be well to have a clause in your contract permitting you recovery in the event of an unusual run of product trouble. You can get burned pretty badly if you don't have this protection. Also, have your contract renegotiable on a monthly basis. Your accounting department should keep a close watch on profit or loss each month and advise you promptly when a continual loss occurs in this account."

WARRANTIES ON ORPHAN MODELS

Questioned as to what should be done when a customer has a warranty on an off-brand or orphan, Baragar explained that "we charge the customer full costs and then give him a rebate if we can collect on the warranty."

He also suggested that the service department should be set up so emergency service could be given at all times of the day or night.

"Remember if service is your business, then give your customer just that when he needs it most. Around-the-clock service might sound expensive to you, but actually it isn't. Make up a schedule subjecting at least one man to call each night. This enables the serviceman to spend his nights at home, or even to go visit-

ing if he likes. All you need to know is where to reach him if necessary.

"Service rates, of course, are determined by labor cost, burden and overhead, and profit. Don't be afraid of your competitor's price. Set up a fair rate for the service you render, give good service, and you will prosper. Don't worry about the boy up the alley who charges \$2 an hour and gives poor service. Your competition is the boy who gets a good price and does a good job.

"And don't try to chisel on hourly rates and make it up on parts. A 100% markup on replacement parts used in service, however, is not at all uncommon and in most cases this margin is necessary to permit free replacement if the part you have supplied should fail in warranty. Remember that the initial price is usually paid without question but you will lose a customer if you try to collect again should the part fail too soon.

"Most companies today charge time-and-a-half or double time for service required outside of the regular hours. Because customers usually object to what they consider 'being taken,' we have promoted better relationships and increased sales by charging them straight rates on emergency service and including the overtime paid to servicemen in our 'burden' figure. This raises the standard rate a little, but it does help service sales in the over-all picture."

To a question as to whether installation, service, and parts costs aren't up today to the point where the installation and first-year service on larger jobs are most costly than the equipment itself, Baragar replied that costs were up.

"Today condensing units aren't being sold for list price. If they were, your ratio of installation costs would be down. Ten years ago," he continued, "if you called on a prospect and told him, 'this walk-in and unit will cost you \$1,300,' you watched him closely, and if he didn't bat an eyelash, you'd add: 'plus installation.'"

How much time does a serviceman spend on the average call? Baragar stated that a two-year study of 40 servicemen revealed that the domestic serviceman averaged 1.2 hours per call while the commercial serviceman averaged 2.3 hours per call.

"If you have an average department, don't kid yourself into thinking it can be done in a lesser average time. Special service may require more or less, but run-of-the-mill calls will be close to this average over a period of time.

"Company trucks or cars for service are a costly proposition," he also said. "High insurance rates, careless

driving, maintenance cost, and storage all add up to one heck of a lot of dollars. In our opinion, it is far more economical to have your serviceman supply his own transportation. Pay him mileage on a flat hourly rate and you will save yourself money and headaches. Remember, when he drives his own truck he will take much better care of it.

STOCK SERVICEMAN'S CAR COMPLETELY

"Equip your serviceman's car stock with everything he needs. Have your service manager make up a complete list of the things most commonly used and see to it that they are requisitioned to car stock. Many hours are lost because of inadequate stocks.

"Buy wisely from your parts wholesaler. Take advantage of quantity purchases, if you have need of the merchandise and can afford it. Keep a good supply of necessary items on hand. Many times your profit is made on the purchase price.

"Advertising is a must for any company to show real progress. The best medium, of course, is good service and happy customers. Having uniforms for your men is an excellent way to promote confidence in your customers. Newspaper and radio advertising have brought poor results in our business. Direct mail campaigns offering fall or spring specials are excellent, also telephone book advertising.

"Another method that has proven very satisfactory for repeat calls is to send out a self-addressed postcard asking your customers to fill in the questionnaire which will let you know what they thought of the service rendered, etc."

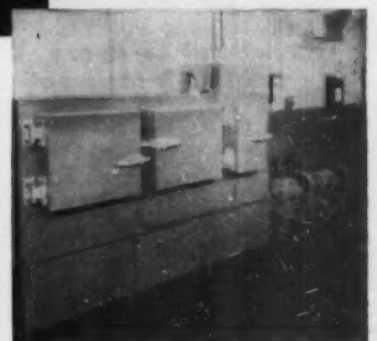


...with the help of TEMPRITE OIL SEPARATORS

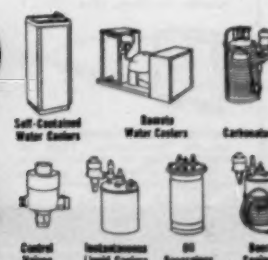
Once again, dramatic proof is established! Once again, Temprite Oil Separators provide the answer to increased refrigerating efficiency!

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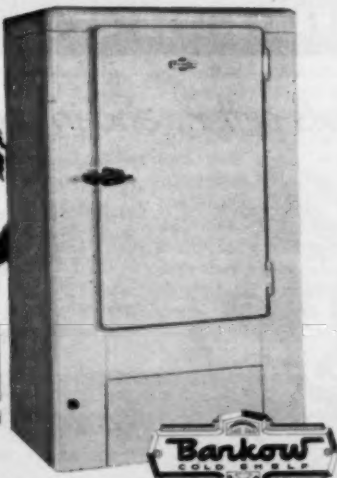
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Refrigeration Problems

and their Solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

Changing from Sulphur Dioxide To 'Freon-12' (3)

COMPRESSOR DISPLACEMENT

Since, for the same B.T.U. per hour capacity, the volume of vapor for "Freon-12" is only about two thirds that of SO_2 , the compressor displacement that was right for SO_2 will be about one half again as much as for "Freon-12." If we kept the same compressor displacement, the compressor would pump about one half more "Freon-12" than is required for the same refrigerating capacity.

We might be glad to get the 50% increased capacity, but the motor load would also be increased about 50%, so unless the motor was under-loaded with SO_2 , which is unlikely, we must reduce the compressor displacement about one third.

Assuming that it is a belt-driven compressor, we can reduce the compressor displacement one third by replacing the motor pulley with one about $\frac{1}{3}$ smaller; that is, the new motor pulley will have a diameter about $\frac{2}{3}$ the diameter as the former SO_2 motor pulley.

The bore of the pulley, number, and size of grooves, and holes for the fan, will have to be the same as before, however. This will mean moving the motor a little farther away from the compressor, or buying shorter belts.

Someone may conceive the idea of increasing the capacity of the compressor by about 50%, by keeping the same compressor displacement and same motor pulley as for SO_2 , but using a motor with one half greater horsepower. Rarely can this

be done, for the condenser would have to be changed to a large one. The same is true of the evaporator and of the liquid and suction lines.

The expense of replacing these large, expensive parts is usually too great. So as we said originally, we can rarely expect to get any more refrigerating capacity by changing a system from SO_2 to "Freon-12."

HERMETIC UNITS

Obviously, if it is a hermetic unit that a serviceman wants to change, there is nothing that can be done to reduce the compressor displacement, nor to increase the motor horsepower, so changing an SO_2 hermetic unit to "Freon-12" is not practical, except perhaps in the case of some of the very small sizes used in domestic refrigerators which were over-motored originally. Such cases are certainly rare.

The electrical insulation for the field coils of hermetic motors for SO_2 units was of a different material than that required for "Freon-12"—another reason why changing hermetic units from SO_2 to "Freon-12" is not often feasible nor advisable.

COMPRESSOR OIL

Sulphur dioxide is very slightly miscible in oil; that is, it and oil do not mix very readily, as oil and "Freon-12" do. When the oil absorbs "Freon-12," its viscosity is reduced; so a high viscosity oil must be used with "Freon-12," so that even with reduced viscosity due to absorption of "Freon-12," the viscosity will still be sufficiently high to assure proper lubrication.

Oil with a viscosity of 150 seconds Saybolt is generally used with SO_2 , whereas oil with a viscosity of from 300 to 325 seconds Saybolt should be used with "Freon-12."

The oil for "Freon-12" should be a highly refined, almost colorless

oil indicating that it contains a minimum of "unsaturated hydrocarbons" which play such an important part in causing copper plating. (See the issues of Jan. 12 and 19, 1948, or Chapter 77 in Volume J-5 of "Refrigeration Problems," on Copper Plating.)

Especially for low temperature systems, the oil should be free of wax, and, of course, should be dry. Compressor oil must be kept tightly sealed; otherwise it absorbs water from the atmosphere and introduces this water into the refrigerating system.

EXPANSION VALVES AND FLOAT VALVES

If the liquid control for SO_2 was an automatic expansion valve, it can probably be used for "Freon-12," although its setting will have to be raised to the higher pressure necessary for "Freon-12." The valve should also be carefully washed out with trichlorethylene and blown out with nitrogen.

If the liquid control was a thermostatic expansion valve, it will have to be replaced with a "Freon-12" thermostatic expansion valve of the correct size and capacity, and of the desired type.

The density of liquid "Freon-12" is slightly less than that of SO_2 . Therefore, the float ball for SO_2 will sink a little deeper in "Freon-12" than it did in SO_2 .

In low-side floats, this will allow a little higher liquid level and allow some liquid to spill out into the suction line. This will tend to keep oil moving out of the float shell, preventing the float from oil binding.

This is helpful in converting apartment house multiples using low-side floats, from SO_2 to "Freon-12." Service engineers who have changed over this type of installation, report that they have experienced little or no difficulty with oil-binding of the floats.

In high-side floats, the tendency will be to reduce the orifice size. Coupled with the increased volume of liquid required for "Freon-12," high-side floats for SO_2 will probably not be satisfactory for use with "Freon-12."

To the best of our knowledge, no formulae nor conversion tables have been developed for capillary tube sizes and lengths when changing from SO_2 to "Freon-12."

However, tables have been developed for the sizes of capillary tubes for various sizes of units. They may be used to select the capillary tube for use with "Freon-12."

CONTROLS AND WATER VALVES

The same temperature controls can, of course, be used for "Freon-12" as previously for SO_2 . However, low pressure cut-outs must be reset for the higher pressures for "Freon-12." In some instances, the old SO_2 pressure controls may not have the range for "Freon-12" and may have to be replaced with new controls with higher ranges.

The same applies to water control valves on water-cooled units, as they must be reset for the higher pressures. If of insufficient range, they too must be replaced. There will be

no perceptible difference in the amount of water for the same refrigerating capacity, before or after changing from SO_2 to "Freon-12," if the change has been carefully made; but the settings of the water control must be changed.

DRYING FOR FREON-12

Sulphur dioxide units must be dry to prevent the formation of corrosive sulphurous acid. It has been common practice to bake them to assure dryness.

This practice may have led to the impression that more water can be tolerated in a "Freon-12" system than in an SO_2 system. While this is true as far as corrosion is concerned, actually a "Freon-12" system must be far drier than an SO_2 system if there are to be no freeze-ups at the expansion valve or capillary tube.

After all the parts of the system have been washed out, they should be thoroughly blown out, preferably with nitrogen, or if unavailable, CO_2 . When the parts of the system are reassembled, a drier filled with silica gel, activated alumina, or calcium sulphate should be put in the liquid line. If possible, place the drier inside the refrigerated space, so that it stays cold at all times.

DOUBLE EVACUATION

Preferably with a separate vacuum pump, pump a deep vacuum on the entire system. A "no-bubble" vacuum is recommended. A no-bubble vacuum is one in which no bubbles appear from a tube from the discharge service valve, having its free end submerged under clear oil in a clean transparent glass tumbler or bottle.

This "no-bubble vacuum" indicates that the vacuum pump or compressor is pumping the best vacuum of which it is capable. Also, it indicates the probability of no leaks in the system; or if there are any, they are extremely small ones.

Then break this "no-bubble vacuum" back to zero gauge or above, with nitrogen, CO_2 , dry air, or "Freon-12," although the latter is more costly. Again pump a no bubble vacuum.

This "double-evacuation" is very effective in assuring a dry system.

Then charge with clean, dry "Freon-12" in the correct amount. Make all the necessary adjustments to controls to obtain normal pressure and temperature conditions.

LEAK TEST AND OIL LEVEL CHECK

And last, but not the least important, check thoroughly for leaks. Take nothing for granted. The "Freon-12" may find some leaks that the SO_2 did not.

It must be remembered that "Freon-12" and the compressor oil mix readily. Consequently, the

"Freon-12" absorbs some of the oil from the crankcase and holds it in the "Freon-12." How much oil the "Freon-12" holds, depends upon several things, including the design of the equipment, and the pressures and temperatures throughout the system.

The oil held by the "Freon-12" came from the crankcase, and even in a normal job it may amount to quite a percentage of the crankcase oil.

The oil robbed from the crankcase by the refrigerant must be replaced, if there is to be enough oil for the compressor to properly lubricate itself. You must do this.

Check the oil level in the crankcase an hour or so after the job is started up, and add oil as required.

It may take several hours for the "Freon-12" to take up all of the oil that it will carry under the conditions. Therefore, again check the crankcase oil level the day following, and add oil as required.

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Insist on the

Recalibrator



- Vital to Every Testing Instrument

Using a testing gauge that doesn't have a convenient means of keeping it accurate is like using a cutting tool without a handy means of keeping it sharp.

Like good cutting tools Marsh Gauges are "sharper" to begin with, but if you ever knock them out of adjustment you can "sharpen" them up in flash with the twist of a screwdriver.

That's why every true craftsman prefers Marsh testing instruments. When the pointer fails to return to zero just turn the Recalibrator screw until accuracy is restored. And remember: the Recalibrator is the one sound way to "sharpen" a gauge because it gets right down to the source of the error...corrects the relation of the bourdon tube to the movement.

Marsh testing gauges and thermometers are the only testing instruments that have the "Recalibrator." Use these tools that are right and can be kept right.

See your jobber

WRITE FOR BULLETINS
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Sales Affiliate of Jos. P. Marsh Corporation
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MARSH Refrigeration Instruments



Easily removed knurled rings on the new, handsome Marsh testing gauge set gives quick access to the "Recalibrator." Here is the team of tools for the serviceman who wants the best. (Dial size, 2 1/2").



The "Recalibrator" is the finishing touch to this fine testing gauge with three extra color differentiated scales for sulphur dioxide, methyl chloride, and Freon. (Size, 2 1/2").



The "Serviceman" thermometer also has the "Recalibrator." Note the 4-scale version of the Serviceman with color-differentiated pressure equivalents.

There's always one that's better...and in controls it's Ranco!



Get your teeth into this: Ranco controls are available for more than 4,000 replacement installations—refrigerators, milk coolers, water coolers, commercial units—almost every type of job you'll ever tackle. That, and because of their high quality and dependable accuracy, is the reason why more Ranco controls are in use than any other kind.



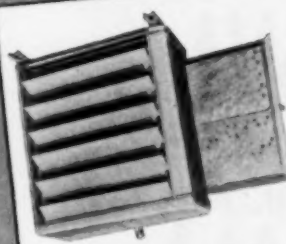
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For LOW COST Air Conditioning. Ceiling-mounted, it uses no "pay space," it eliminates costly ducting.



Write for Bulletin AC-171

KRAMER TRENTON CO. • Trenton 5, N.J.

NEMA Sales of Refrigerators During January Were 275,297 Units; 30% over December

Summary for January, 1952
Complete Refrigerators Only—Sales by Sizes—Units
Reports were received from 16 companies

| Sizes | Domestic (48 States and D. C.) | Canadian | Other Foreign | Total |
|-----------------------------|--------------------------------------|----------|------------------|---------|
| 1. Less than 4 cu. ft. | 1,655 | ... | 254 | 1,911 |
| 2. 4 cu. ft. | ... | ... | ... | ... |
| 3. 5 cu. ft. | ... | ... | ... | ... |
| 4. 6 cu. ft. | 23,539 | 90 | 3,228 | 26,857 |
| 5. 7 cu. ft. | 31,671 | 650 | 2,130 | 34,441 |
| 6. 8 cu. ft. | 59,016 | 882 | 3,785 | 63,683 |
| 7. 9 cu. ft. | 63,988 | 289 | 1,498 | 65,775 |
| 8. 10 cu. ft. | 33,662 | 142 | 571 | 34,375 |
| 9. 11, 12, 13 cu. ft. & up | 46,726 | 50 | 1,177 | 47,953 |
| 10. Total | 266,236 | 2,163 | 12,933 | 275,297 |

Participating companies: Admiral Corp.; Avco Mfg. Corp.; The Coolerator Co.; Deepfreeze Appliance Div., Motor Products Corp.; Frigidaire Div., General Motors Corp.; General Electric Co.; Gibson Refrigerator Co.; Hotpoint Inc.; International Harvester Co.; Kelvinator Div., Nash-Kelvinator Corp.; A. J. Lindemann & Hoverson Co.; Norge Div., Borg-Warner Corp.; Philco Corp.; Refrigeration Div.; Sanitary Refrigerator Co.; Seeger Refrigerator Co.; Westinghouse Electric Corp.

Dates of 2 Industry Conferences Set--

(Concluded from Page 1, Column 3)
Manufacturers will furnish educational displays. Exhibit hours are:

Friday, May 2 - 1 to 5 and 7 to 10 p.m.

Saturday, May 3 - 10 a.m. to 5 p.m.

Sunday, May 4 - 12 noon to 4 p.m.

Exhibit space is provided free of charge to manufacturers who were exhibitors at the 7th All-Industry Refrigeration and Air Conditioning Exposition in Chicago last November.

Educational talks by industry experts will be a part of the educational program on each of the three days of the conference. A question and answer forum will also be a part of each morning's program.

High spot of the program will be a banquet and entertainment on Saturday evening, May 3, sponsored by the Philadelphia Chapter and Keystone Association of the Refrigeration Service Engineers Society.

"These educational exhibits are designed to give the men who install, service, and operate refrigeration and air conditioning equipment an opportunity to talk with the factory experts who design the equipment," said John H. Spence, Hussmann Refrigerator Co., general chairman of REMA's Educational Conference Committee.

"It represents a real opportunity to keep abreast of the many refinements and developments in the industry. We expect an attendance of at least 2,000 at the conference."

"We would like to extend a general invitation to all men in the greater Philadelphia area who are identified with the installation, service, or operation of refrigeration and air conditioning equipment to attend this conference."

In addition to the educational talks and exhibits, those who attend will find that Philadelphia is rich in historical interest and American tradition, REMA noted. Historical landmarks include the home of Betsy Ross, Carpenter's Hall, meeting place of the First Continental Congress, Independence Hall, and Christ Church, founded in 1695.

Carrier Ad Plans--

(Concluded from Page 1, Column 2)
Gazelle, dealer sales manager.

Local advertising, including radio and television, also will be increased, he said, pointing out that Carrier has set a goal of \$50 million in annual sales for its dealer division to be reached in five years.

"Last year this division accounted for \$30 million out of a total of \$81 million in sales," Gazelle declared.

The full line of Carrier dealer products, including the larger package air conditioners, room units, dehumidifiers, ice makers, and commercial refrigeration, was pushed at the Detroit and other field meetings, which have been held in 17 cities.

"WEATHERMAKER HOME"

In its promotion of year-round residential air conditioning, the company will feature the "Carrier Weathermaker Home" which is not "any one specific house, but a house built around air conditioning. Because it is built around air conditioning, it frees architects and builders from old-fashioned barriers to good design," Carrier states.

"It's the house that is built from the inside out, a house that lets people live the way they want to, a house that begins with comfortable space and no restrictions. Because it relies on a Carrier Weathermaker air conditioner for comfort, it permits the architect to design a home in which halfway comfort measures (casement windows, attic fans, louvers, wings, screens, and storm windows) are left out. The Weathermaker Home," Carrier claims, "should be simpler to build. It should give more space for the money. It should save almost as much as the air conditioning cost in the first place."

Several hundred residential installations of the combination gas and electric conditioner have been made in the past four years, but now the company feels the market is ready for promotion on a national scale.

ROOM COOLER, PACKAGED UNITS ALSO IN LINE

The room cooler and conventional package air conditioners will also be given a strong push this year by Carrier, dealers learned.

"Lowest price room unit that Carrier has ever produced" is the new entry announced by the company for this field—a ½-hp. unit priced at \$239. This is designated as model 51S0. Carrier's ½-hp. window unit (51S1) will sell for \$329; the ¾ (51S2) at \$390, and 1 hp. (51S3) at \$469.

In addition Carrier will have its 1 and 1½-hp. console room conditioners, the 1-hp. unit being available in either air or water-cooled models.

Dealers were urged by Roy Lansing of Carrier not to overlook the residential market for room units.

"Only 337,000 homes in the United States have room air conditioners, but last year more than 50% of those sold were bought for the home," he said, pointing to a potential market that includes 40 million homes and eight million apartment dwellers.

Promotion and advertising helps for dealers of room units will include radio spots and transcriptions plus seven television spots running in length from 20 seconds to 1 minute. Carrier will also have 58 product advertisements on room units this year, explained William Egan, regional merchandise manager.

Another product for the residential market, Egan told the dealers, is the dehumidifier, which he described as the "sleepers" in the industry.

"Dehumidifiers did \$10,000,000 business last year, and 85% of the market for them is in home basements. The commercial market accounts for the remaining 15%. Sell it on a free trial basis," Egan urged.

The market for ice makers, too, is one that has hardly been touched, Carrier believes, and its dealers were told that only 5% of the potential market has been supplied. For this product Carrier will limit its advertising to trade journals aiming at specific markets.

As for the larger air conditioning units, Art Meling, product manager, told dealers that "we're doing too much engineered selling" in urging them to apply more the specialty selling technique to this class of equipment.

In the next five years, it was predicted, 600,000 package units in the 3 to 15-hp. size will be sold at a value of \$1½ billion. Not only is there a big military market in addition to the present commercial field, but industry offers new possibilities.

Whirlpool Stockholders Approve Merger With Clyde Porcelain at Special Meeting

NEW YORK CITY—Stockholders of Whirlpool Corp., St. Joseph, Mich., at a special meeting here, approved a plan to merge with Clyde Porcelain Steel Corp., Clyde, Ohio. Clyde stockholders approved the merger plan on March 10.

The combine will provide Whirlpool, "world's largest manufacturer of home laundry equipment," with the complete facilities of Clyde, one of the major producers of laundry equipment component parts. The company will continue to bear the name of Whirlpool Corp.

Primary purposes of the merger are three-fold, according to Elisha Gray, Whirlpool president:

1. To reduce manufacturing costs by producing certain component parts previously purchased from outside sources.

2. To establish proximity to additional sources of raw materials, particularly steel.

3. To increase production of home laundry equipment, particularly of automatic washing machines, demand for which the company has been unable to meet completely since it first entered the automatic field in 1947.

Acquisition of the Clyde facilities will add over 400,000 sq. ft. of production area to the company's product manufacturing facilities, bringing total functional areas to over 1,200,000 sq. ft.

In addition, Whirlpool has approximately 300,000 sq. ft. of factory space devoted to defense production, divided between plants in St. Joseph,

Mich., and La Porte, Ind.

At the time of the merger Whirlpool had 675,562 shares of \$5 par common stock outstanding. Clyde had 3,462 shares of preferred \$5 par and 894,200 shares of common 10 cents par stock outstanding.

Under terms of the merger, authorized stock of Whirlpool Corp. consists of 182,080 shares of preferred \$20 par stock and 2,000,000 shares of common \$5 par stock.

The entire outstanding preferred stock of Clyde was called at \$102.50 per share.

Stockholders of Clyde common stock received one share of the new preferred for each five shares held prior to the merger. The new preferred stock is callable after Sept. 1, 1953, at par, plus accrued dividends at the rate of 5½% of par annually.

Whirlpool stockholders received shares of the new common stock for each share held by them prior to the merger.

RCA Dehumidifier--

(Concluded from Page 1, Column 5)
but suitable for many commercial establishments, the RCA dehumidifier will remove up to 12 qts. of moisture from the air in a 24-hour period, and is capable of controlling humidity in closed areas up to 8,000 cu. ft., the company said.

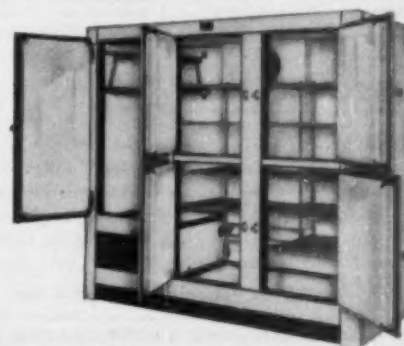
It is operated by a ¼-hp. hermetically-sealed compressor, the company pointed out.

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something to
sell about



There's more than sheet metal, insulation, and screws in a KOCH refrigerator. There's refrigeration know-how, engineering, and design. For nearly 70 years, KOCH has been a top name in commercial refrigeration, and KOCH continues to stay on top, year after year. That's because the KOCH line of reach-in refrigerators is correctly designed for profitable use, for reliable and constant operation, for dependable service. Investigate the unique sales features of KOCH refrigerators. They're really something to sell about. You'd better write today for information and the complete proposition.



Shown is the 65-cu. ft. KOCH model. This and the companion 42-cu. ft. model are finished in PORCELAIN, inside and out. Glass doors and many other options are available. The 25-cu. ft. model has a forced convection system or ice-maker unit and is fully lined with stainless steel!

KOCH

refrigerators, inc.
NORTH KANSAS CITY 16, MO.



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Busy service men are standardizing on Cutler-Hammer replacement controls. No "modifying," no fussing, no delays when you answer service calls with C-H "specific-fit" replacement control units. You take out the old, put in the new... and you are through! It's the easy, sure way to do the job right because Cutler-Hammer has manufactured such "specific-fit" units for more than 1,000 models of refrigerators built since 1925. And you'll also quickly see how the widely-known Cutler-Hammer name (advertised in The Saturday Evening Post, Time, Newsweek, American Home, Better Homes & Gardens, House & Garden, etc.) builds customer confidence and good will. The C-H refrigeration control catalog, as well as the items you need, are available through your authorized C-H refrigeration wholesaler. Do not forget, this C-H refrigeration control line includes the popular general purpose two-button replacement unit (Type 9502) which incorporates dependable motor overload protection. CUTLER-HAMMER, Inc., 1362 St. Paul Avenue, Milwaukee 1, Wisconsin.



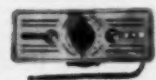
9502N187 C-H "specific-fit" for Norge 1932-33 models.



9521N95 C-H "specific-fit" for Copeland 1939 models.



9502N417 C-H "specific-fit" for Briggs 1937 models.



9521N111 C-H "specific-fit" for Leonard 1937 models.



9525N107 C-H "specific-fit" for Crosley 1949-50 models.

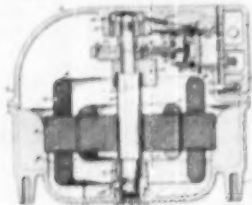
Here are just a few of the "specific-fit" replacement controls in the unequalled Cutler-Hammer line.



Featured by Cutler-Hammer refrigeration wholesalers and recommended by alert service dealers from coast to coast.

PATENTS Week of January 29

2,585,635. COMPRESSOR PUMP. John R. Mangas, La Crosse, Wis. Application Oct. 26, 1948, Serial No. 55,450. 5 Claims. (Cl. 208-905.)

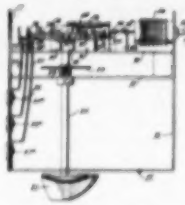


1. A compressor unit of the character described comprising a casing, power means within said casing including a member rotatably driven about a vertical axis, said casing having in the bottom thereof a bath of lubricating liquid, a mechanism on said casing above the liquid level of said bath and driven by said power means, a cylindrical bottom chamber in said casing below said liquid level, an upper chamber in said casing above said liquid level, a passage through said member communicating adjacent the upper and lower ends thereof with said upper and lower chambers respectively, inlet means from said bath of lubricating liquid to said bottom chamber above the lower end of said passage in said member, helical threads on the lower end of said member rotatable therewith within said bottom chamber in one direction by the power means to compress lubricating liquid received in the bottom chamber from said bath through said inlet means, said compression liquid thereby being forced upwardly through said passage and into said upper chamber, and outlet means for supplying lubricating liquid from said upper chamber to said mechanism.

2,585,631. SWITCH FOR USE IN DEFROSTING SYSTEMS. David Morrison, Manitowish, Wis., assignor to Paragon Electric Co., Two Rivers, Wis., a corporation of Wisconsin. Application April 30, 1951, Serial No. 585,115. 15 Claims. (Cl. 306-82.)

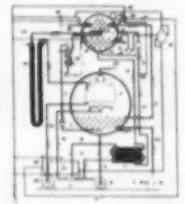
1. In a switch, a group of three spring blades arranged in a row in spaced relation to each other, anchored at corre-

sponding ends with their other ends free, and capable of being flexed from and toward each other; a slide behind the reciprocable lengthwise of said row between forward and retracted positions; a shoulder on the slide behind and, when that slide is in a forward position, engaged with the rear blade while the middle blade stands free and the forward blade is engaged by the forward end of the slide; a second slide that lies beside the first slide, terminated in the vicinity of the middle blade and at all



times in clear of the other two blades; springs tending constantly to retract the slides; automatic means to move the slides from their retracted positions to their forward positions and then release them in predetermined time relation to each other, said blades being initially so stressed that the middle blade contacts the rear blade except at times when the second slide is in its forward position and the first slide is in its retracted position, whereas the middle blade and the forward blade engage each other only when the slides are in their last mentioned positions.

2,583,725. ABSORPTION REFRIGERATION MACHINE. Alexis A. Berestoff, Syracuse, N. Y., assignor to Carrier Corp., Syracuse, N. Y., a corporation of Delaware. Application Dec. 15, 1948, Serial No. 55,485. 6 Claims. (Cl. 68-115.)



1. In an absorption refrigeration system, the combination of a shell, an element disposed in the shell cooperating therewith to form an absorber, a second element disposed in the shell above the first element cooperating with the shell to form an evaporator, a second shell, a member in the second shell cooperating therewith to form a generator, a second member in the second shell cooperating therewith to form a condenser, a strong ejection line connecting the generator and the absorber through which solution flows from the generator to the absorber, means to withdraw refrigerant from the evaporator, a dilution tank, a first line connecting said means with the tank whereby the tank is filled with refrigerant when said means is in operation, a second line connecting the tank with the solution line, said tank being adapted to drain into the solution line, and means for opening said first line and for closing said second line when the system is in operation and for closing said first line and for opening the second line when the system is not in operation.

2,583,708. ABSORBER FOR REFRIGERATING APPARATUS. Richard S. Gaugler, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application Nov. 26, 1946, Serial No. 712,397. 12 Claims. (Cl. 351-190.)



1. Refrigerating apparatus including a tube, a plurality of capillary structures having a core of solid wire covered with

a capillary material extending substantially in the form of an elongated coil within said tube, spacing means located at a plurality of points on said structures for holding said structures spaced from each other and in contact with the wall of the tubing, an axially located aperture in one of said spacing means, a bolt extending through said aperture, a capillary member held by said bolt in contact with each of said structures, said capillary member having a portion extending from said bolt, and means forming a pool of liquid receiving said extending portion of said capillary member.

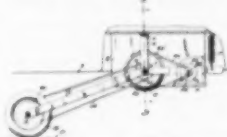
2,583,512. DEHYDRATION UNIT. Southwick W. Briggs, Washington, D. C., and Walter C. Bauer, Chevy Chase, and Walter J. Ewbank, Bethesda, Md.; said Ewbank and said Bauer assignors to The Briggs Filtration Co., Bethesda, Md., a corporation of Maryland. Application June 5, 1947, Serial No. 753,754. 3 Claims. (Cl. 310-112.)



1. A dehydrator for the removal of moisture from fluids comprising a casing having an inlet at one end and an outlet at the other end, said casing having tubular sidewalls with a tubular section of large internal diameter at the center separating a tubular section of reduced internal diameter at each end of the sidewalls, a monolithic block of moisture absorbent material within the casing having its sides fitting snugly against the sidewalls of the casing at the area of reduced internal diameter and spaced from the sidewalls at the center whereby the block is supported in the casing by the sidewalls, a binder between the block and casing at the area of reduced internal diameter near the outlet end of the casing, joining the sidewalls of the casing and block and sealing openings between the block and casing to prevent by-passing of the block by the fluid, and notches in the block at its inlet end extending therefrom to the side of the block adjacent the section of large internal diameter thereby providing conduits allowing direct flow from the inlet to the space between the sidewalls of the casing and the block.

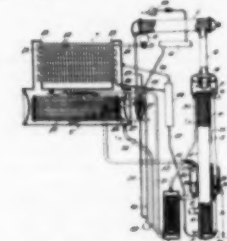
Week of February 5

2,584,340. REFRIGERATING SYSTEM FOR TRAILERS. Daniel Warren Tiffany, Great Falls, Mont. Application Jan. 7, 1948, Serial No. 561. 1 Claim. (Cl. 230-31.)



An operating unit for the compressor of a refrigerating system for trailers, comprising hangers mounted under the trailer, a shaft supported by the hangers, a compressor operated by the shaft, spaced arms of bell-crank formation mounted on said shaft at points intermediate the ends of said arms providing long arm sections and short arm sections, a ground engaging wheel mounted on the forward ends of said long arm sections, a platform suspended under the body of the trailer, a motor mounted on the platform, means including a clutch adapted to transmit motion from said ground engaging wheel to said shaft and motor, and coiled springs connected between the trailer and short arm sections, normally urging the ground engaging wheel into contact with the ground surface.

2,584,350. SOLUTION FREEZER FOR ABSORPTION REFRIGERATION SYSTEM. Horton E. Berry, Newburgh, Ind., assignor to Serval, Inc., New York, N. Y., a corporation of Delaware. Application April 9, 1947, Serial No. 750,351. 6 Claims. (Cl. 68-115.)



1. A generator for a two-pressure absorption refrigeration system comprising a riser tube, a conduit for delivering absorption solution strong in refrigerant to the lower end of said tube, means for heating the tube to expel refrigerant vapor from solution therein, a conduit for withdrawing refrigerant vapor from the upper end of said tube, and a conduit connecting said vapor and solution conduits and extending into the solution flowing toward the generator for delivering a portion of the refrigerant vapor into the solution.

2,584,442. EVAPORATING UNIT FOR HEAT EXCHANGE APPARATUS. George Frie, Trenton, N. J., assignor to Kramer Trenton Co., Trenton, N. J., a corporation of New Jersey. Application Nov. 13, 1947, Serial No. 755,056. 5 Claims. (Cl. 257-137.)

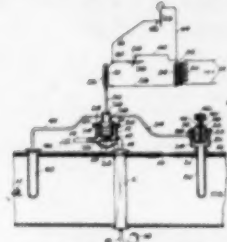
4. An evaporator unit for refrigeration apparatus designed or installation in coolers of the reach in or reach down type comprising a horizontally elongated casing adapted to be bodily incorporated in such coolers, a face plate therefor, an evaporator coil having tubular runs arranged in vertical alignment positioned within the casing, said coil being bent into a formation of W shape when viewed in

plan with two apices of the W adjacent the face plate and one apex and two ends of the W adjacent the back of the casing, said face plate having an opening located between the said apices of the



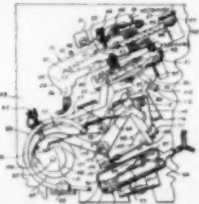
coil that are adjacent the face plate, a fan mounting said opening and supported by said face plate, a fan motor also supported by said face plate within the casing, and air outlets at both ends of said casing for permitting outflow of air through the ends, bottom and face plate thereof.

2,584,445. TEMPERATURE CONTROLLER FOR AIR-CONDITIONING SYSTEM. William J. Hajek, Knoxville, Tenn., assignor to Robertshaw-Fulton Controls Co., Knoxville, Tenn., a corporation of Delaware. Application Feb. 14, 1948, Serial No. 5,515. 3 Claims. (Cl. 230-37.)



1. In a temperature regulator for an air conditioning system of the type including an air duct, a heat exchanger therewith and means including a valve mechanism for supplying heating medium to said heat exchanger, the combination of an expansible and collapsible chamber operatively connected to the valve and having means associated with said chamber whereby said chamber is heated, a container for a vaporizable liquid in communication with said chamber and subjected to the temperature of the air leaving said heat exchanger, and means for predetermining the temperature to be maintained in the space to be conditioned including a second container for said volatile liquid in communication with said chamber, an electric heater associated with said last named container, an electric circuit connected to said heater, an adjustable resistance in said circuit for varying the temperature at said second container, and means responsive to a predetermined temperature in said space for discontinuing the control of said adjustable resistance and increasing the temperature of said heater.

2,584,422. ELECTRIC REFRIGERATION AND DEFROSTER CONTROLLER. Ira E. McCabe, Chicago, Ill. Application July 12, 1947, Serial No. 750,597. 23 Claims. (Cl. 68-4.)



1. In refrigeration control mechanism, the combination of a refrigerant circulatory system including a cooling unit, refrigerant supply means therefor, electrical defrosting means including a transformer having a primary winding and embodying said cooling unit as the secondary winding, control mechanism having a plurality of control positions in one of which the supply means is rendered inoperative and the defrosting means is rendered operative by energization of the primary winding, and automatic means responsive to a defrosting condition and operative, when a predetermined condition exists, to render said defrosting means inoperative and said supply means operative.

2,584,670. DRIP TRAY ASSEMBLY. Richard J. Carberry, Erie, Pa., assignor to General Electric Co., a corporation of New York. Application April 11, 1950, Serial No. 155,251. 6 Claims. (Cl. 68-193.)



1. In a refrigerator having a food storage compartment and an evaporator disposed at the top portion of the food storage compartment and extending substantially the full width of the storage compartment, a door for closing the front of the evaporator, a horizontal supporting frame disposed beneath said evaporator, said frame including a horizontally extending cross piece beneath said door for collecting drip therefrom, said frame further including a central rearwardly extending member and two rearwardly extending side members disposed adjacent opposite side walls of said compartment, a drip tray supported by said frame, a receptacle supported by said frame, said central member and one of said side members including means for supporting said drip tray in one position beneath said evaporator during normal operation and further including means for supporting said receptacle beneath said drip tray, said central member and the other of said side members including means for supporting said drip tray in a second position beneath said evaporator laterally removed from said first position and disposed laterally from said receptacle during defrosting of said compartment, an opening therein and being sloped toward said opening to direct drip water therethrough, said drip tray being disposed beneath said opening for receiving water from said opening when said drip tray is in said first position, said recep-

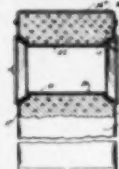
table being disposed beneath said opening and receiving water from said opening when said drip tray is in said second position.

2,584,532. FREEZING TRAY. Robert S. Boyle, Akron, Ohio, assignor to The Cube Drawer Corp., Akron, Ohio, a corporation of Ohio. Application July 22, 1948, Serial No. 41,529. 3 Claims. (Cl. 68-155.5.)



1. A freezing tray comprising a rigid grid open at the bottom and having a plurality of individual pocket sections formed therein, said grid having longitudinally extending bars and transversely extending bars that form the pocket sections in same, said bars having slightly tapered flat surfaces forming the walls of said pocket sections, said longitudinally extending bars being deeper than said transversely extending bars and with the outer longitudinally extending bars each having an outwardly directed flange formed on the upper edge of its outer surface, and a rubber pocket forming liner associated with said grid and being provided with a plurality of closed bottom pockets adapted to seat snugly in the pocket sections of said grid, the bottoms of the pockets in said rubber liner being in the general shape of catenary curves extending across same, said rubber liner also having edge portions adapted to extend around the flanges on said grid in engagement therewith and down into contact with the bars of the grid to removably position said liner snugly on said grid.

2,584,588. REFRIGERATOR CABINET. Mario Laguardi, Long Island City, N. Y. Application June 25, 1946, Serial No. 679,090. 1 Claim. (Cl. 312-314.)



In a refrigerator, the combination of vertically-extending outer walls having upper edges, two of said walls facing one another and provided with closure openings, with said openings being bordered by diagonally inward flanges, a cooler casing disposed inwardly of said walls and having upwardly-extending casing walls and top and bottom casing walls, two of said upwardly-extending casing walls facing one another and, with the said two of said walls, defining openings aligned with the first-named openings, said last-named openings being bordered by diagonally outward flanges extending toward the adjacent first-named flanges, and said top and bottom casing walls having flanges extending toward adjacent flanges of said two of said outer walls, a removable top for said refrigerator having down-turned substantially vertical walls with their lower edges disposed upon the upper edges of said outer walls, removable heat and cold insulation material in contact with the inner face of said top, including said down-turned walls, as well as in contact with the upper face of said top casing wall and the adjacent inner faces of said outer walls, means detachably connecting said flanges together comprising detachable fastening strips bridging the outer faces of said flanges and detachably secured thereto, closures for said openings and means hingedly connecting said closures to the opening-containing outer walls.

DESIGNS

165,891. AIR COOLER. Daniel D. Wile, Whittier, Calif., assignor to Refrigeration Engineering, Inc., Los Angeles, Calif., a corporation of California. Application Nov. 13, 1950, Serial No. 12,943. Term of patent 14 years. (Cl. D42-4.)



The ornamental design for an air cooler, substantially as shown.

Week of February 12

2,584,968. DEW POINT MEASURING APPARATUS. Alexis B. Dember, Towson, Md., assignor to Bendix Aviation Corp., Baltimore, Md., a corporation of Delaware. Application March 20, 1947, Serial No. 735,000. 8 Claims. (Cl. 73-17.)



1. In humidity responsive apparatus, a pair of terminals adapted for connection with an electric source, a first resistor having a negative temperature coefficient of resistance connected at one end with one of said terminals, a second resistor connected between the other end of said first resistor and the other of said terminals, voltage measuring leads connected with said second resistor at spaced points, one of said leads being in movable contact with the said second resistor and humidity responsive means for actuating the said movable lead whereby the active portion of said second resistor between said voltage measuring leads decreases in the presence of decreasing humidity.

(To Be Continued)

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The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request to the purchasing office under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date. This will save time in filling your request. For reasons of economy, specifications are normally not included with the bid invitations unless the specification is a new one. First time bidders on a particular item should request a copy of applicable specifications and drawings at the time the request for a bid is made.

DEPARTMENT OF DEFENSE

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of these offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices. Ordnance District Offices do not have information on any other purchases.

Invitations for Bids numbers will be followed by the letter "B." Requests for proposals or quotations will be indicated in this column by the letter "Q" or, if numbered, the number will be followed by the letter "Q."

| Description | Quantity | Invitation No. | Opening Date |
|--|-----------|-----------------------|--------------|
| District Engineer, St. Louis District, Corps of Engineers, St. Louis 1, Missouri | | | |
| See brass refrigeration | 76660 ea | Eng-23-065 | 7 Apr 52 |
| McMaster Carr No. 644-F or equal in sizes ranging from 1/2 inch OD tube to 1/2 inch OD tube | | 52-677B | |
| See pile brass tubing | 857100 ea | | |
| copper to copper to copper reducing in sizes ranging from 1/2 x 1/2 x 1/2 inch to 1-1/2 x 1-1/2 x 1-1/2 inch | | | |
| District Public Works Office, Sixth Naval District, Naval Base, South Carolina | | | |
| Dehumidified warehouse construction & roads, railroads & utilities, U. S. Naval advanced base supply depot, Gulfport, Miss. | Job | 32250 | Apr 52 |
| Officer in Charge, Navy Purchasing Office, Naval Supply Center, Norfolk, Virginia | | | |
| Electric fan 26 inch pedestal model | 18 ea | 634B | 8 Apr 52 |
| District Public Works Office Headquarters, Fifth Naval District, Naval Base, Norfolk 11, Virginia | | | |
| Air conditioning for FAH building space building N-26 at the U. S. Naval Base, Norfolk, Virginia, deposit of \$10 required for plans and specifications. | Job | 32894 | 8 Apr 52 |
| Philadelphia District Corps of Engineers, 121 N. Broad Street, Philadelphia, Pennsylvania | | | |
| Ice plant 1 ton skid mounted gas driven | 50 | Eng-36-109/ N 52-245B | 31 Mar 52 |
| Corps of Engineers, U. S. Army Office of The District Engineer, Chicago District, 636 Merchandise Mart, Chicago 54, Illinois | | | |
| Cold storage and meat cutting plant and I & E Building at sum job Chanute Air Force Base, Ill. | | 032-52-48 | 22 Apr 52 |
| Commanding Officer Armed Services Medical Procurement Agency, 84 Sands Street, Brooklyn, N. Y. | | | |
| Refrigerator | 1309 ea | 1304B | 11 Apr 52 |
| Chicago Quartermaster Depot, Purchasing Division, Chicago, Illinois | | | |
| Fountain drinking water Spec. GSA-262E | 2255 ea | 52-1238 B | 14 Apr 52 |

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2. Lines and products now carried (not necessary to list manufacturer represented).
3. Lines and products being added or interested in adding.
4. Territory covered by states, parts of states, or countries.

Please send the above information to:

AIR CONDITIONING & REFRIGERATION NEWS
BOX RP-A, 450 W. FORT ST., DETROIT 26, MICHIGAN

GENERAL SERVICES ADMINISTRATION

| Description | Quantity | Invitation No. | Opening Date |
|---|----------|----------------|--------------|
| General Services Administration, 1114 Commerce St., Dallas, Tex. | | | |
| Valves, air vent | 24 ea | FW-21542 | 4-10-52 |
| Valves, 3/8 in. brass | 108 ea | FW-21542 | 4-10-52 |
| Valves, check swing | 42 ea | FW-21542 | 4-10-52 |
| Valves, glove | 404 ea | FW-21542 | 4-10-52 |
| General Service Administration, Business Service Center, 55 Whitehall Street S.W., Atlanta, Georgia | | | |
| New five ton air conditioner Job | | CR4-215 | 4-14-52 |
| selective service bldg. | | | |
| 116 S. 20th Street | | | |
| Birmingham, Ala. | | | |

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

| Description | Quantity | Invitation No. | Opening Date |
|---|----------|----------------|--------------|
| NACA Lewis Flight Propulsion Laboratory, 21900 Brookpark, Cleveland, Ohio | | | |
| Units air conditioning window type 1/2 hp, 20 V, 60 cy. | 6 ea | C3354 | 4-4-52 |

CONTRACTS AWARDED THROUGH MARCH 21

| Description | Contractor and Address |
|---|--|
| Headquarters, Air Materiel Command, Dayton, Ohio | Indicator, temp.—1.794 ea., \$36,126.—Lewis Engr. Co., 326 Church St., Naugatuck, Conn. |
| Bulb, temperature.—5,462 ea., \$56,750.—Weston Electrical Instr. Corp., 614 Frelinghuysen Ave., Newark, N. J. | |
| Yards And Docks Supply Office, U. S. Naval Construction Battalion Center, Fort Belvoir, California | Refrigerator units 1/475 cu. ft. & 6800 cu. ft. refriger.—314 ea., \$364,480.—Victor Products Corp., 301 Pope Ave., Hagerstown, Md. |
| Mobile District, Corps of Engineers, 2381 Grant St., Mobile, Ala. | Ice chests, K-5-1.—14 ea., \$2,309.—Westbrook Mfg. Co., Jackson, Miss. |
| Double service reach-in refriger. K-19-4.—28 ea., \$18,152.—Westbrook Mfg. Co., Jackson, Miss. | |
| Ice cream cabinets, K-4.—28 ea., \$6,291.—Westbrook Mfg. Co., Jackson, Miss. | |
| Department of The Navy, Bureau of Aeronautics, Washington 25, D. C. | Indicators, thermometer.—1,114, \$97,327.—The Lewis Engineering Co., Naugatuck, Conn. |
| General Services Administration, Business Service Center, Region III, 7th and D Streets, S.W., Washington 25, D. C. | Valves, gate.—3,000 ea., \$110,370.—The Ohio Injector Co., Wadsworth, Ohio. |
| General Services Administration, Federal Supply Service, 525 U. S. Courthouse, Chicago 4, Illinois | Refrigerators (household type).—\$48, \$45,965.—Nash-Kelvinator Sales Corp., 2010 Kendall St. N.E., Washington 25, D. C. |
| General Stores Supply Office, 706 Robbins Ave., Philadelphia 11, Pennsylvania | Cooler, drinking water, bubbler type.—545 ea., \$199,525.—Cordley & Hayes, 448 Fourth Ave., New York 16, N. Y. |
| Ships Parts Control Center, Naval Supply Depot, Mechanicsburg, Pennsylvania | Repair parts for refriger. equip.—\$4,302, \$232,202.—Carrier Corp., 300 S. Geddes St., Syracuse 1, N. Y. |
| High pressure reducing & regulating valves & repair parts.—\$6,647, \$141,328.—Grove Control, Inc., 6529 Hollis St., Emeryville, Calif. | |
| Repair parts for refrigeration equip.—\$5,262, \$29,455.—York Corp., 1166 Walnut St., Philadelphia 3, Pa. | |
| Valves & repair parts.—\$5,519, \$47,519.—J. E. Lonergan Co., 306 Race St., Philadelphia 6, Pa. | |
| Valves & repair parts.—172, \$26,880.—Foster Engineering Co., 835 Lehigh Ave., Union, N. J. | |
| Headquarters, 5th Armored Division, Engineer Purchasing & Contracting Office, Camp Claiborne, Arkansas | Modification of ward type W-2 for combined delivery room & out-patient obstetrical gynecological clinic. Project includes carpentry, painting, electrical work, plumbing, heating, automatic sprinkler & air conditioning.—Job, \$25,445.—Don Bailey General Contractor, 1117 S. 18th St., Fort Smith, Arkansas. |
| Headquarters, Air Materiel Command, Dayton, Ohio | Freon gas.—\$488,800.—Pennsylvania Engineering Co., Philadelphia, Pa. |
| Temperature bulbs.—\$274,395.—Instruments Div., Thomas A. Edison, Inc., West Orange, N. J. | |
| Humidity test chamber.—\$37,712.—Boswer Tech. Refrig. Inc., Boswer, Inc., Terryville, Conn. | |

Barber-Colman Acquires Wheelco Instruments Co.

ROCKFORD, Ill. — Barber-Colman Co. here announced it will purchase the principal assets of Wheelco Instruments Co. of Chicago.

Wheelco products consist of indicating, recording, and controlling industrial instruments, and combustion safeguards.

Present plans are to continue current operations in Chicago until such time as manufacturing facilities can be gradually transferred to Rockford in a manner that will result in very little interruption in shipments, Barber-Colman said. No changes are contemplated in Wheelco's national sales and service organization.

Barber-Colman entered the automatic control field in 1926.

'Incentive Library' Opens In New York

NEW YORK CITY — A unique merchandising library has been opened in New York City.

The new business reference facility, to be called the "Incentive Library," is located in the eastern offices of Cappel, MacDonald and Co., merchandise incentive firm at 30 East 60th St., here.

Sam Lebensburger, vice president of the firm and director of the eastern offices, said that the "Incentive Library" has been established to assist sales organizations, sales executives, business administrators, business editors, and others in researching the methods, ideas, and promotion materials used by successful incentive campaign sponsors.

The library presents a compilation in volume form of industry case histories, tested merchandise prize plans, campaign themes, and rules, Lebensburger said.

Big Four Changes to Cold Storage at Cost of \$100,000

OKLAHOMA CITY — Conversion of the Big Four Ice & Cold Storage Co., 822 S. Walker, from ice manufacturing to cold storage was announced by company officials.

Paul H. Andres, president, said the change-over will cost about \$100,000. Brine tanks for freezing ice will be torn out, along with ice storage rooms, to make way for additional cold storage lockers, he said.

Receiving, Storage Building Planned by Buffalo Forge

BUFFALO — Buffalo Forge Co. plans to spend \$100,000 for a receiving and storage building at its plant at 480 Broadway. The building, about 50 ft. deep, will cover almost the full width of the company's property along Sycamore St.

The new structure will eliminate some of the company's outside warehousing. It will facilitate handling of goods and eliminate some of the congestion which now confronts truckers who use Mortimer St.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$5.00 per insertion. Limit 50 words. 10¢ per word over 50.

RATES for all other classifications \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

MANUFACTURERS, WHOLESALERS—Experienced men always in demand. Your opportunity to obtain the services of the best qualified sales manager and engineer today. Available May 1st. Sorry, unable to identify myself due to present position. Finest references obtainable. If your business needs help, inquire at once. BOX 2954, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

RADIO-TV-Ref. field engineers. Will train good radio service men or engineers to travel in supervisory capacity. Requires good fundamental and practical knowledge. Service or engineering experience necessary. Distributor or factory experience desirable. Excellent opportunity. Vacancies due to promotion and expansion. Can work into sales or development engineering. Midwest, southern and eastern territories available. Automobile not needed. Send details of experience, education, also present and past salaries. All replies will be kept confidential. ADMIRAL CORPORATION, Dept. E 201 E, North Water St., Chicago 11, Ill.

MANUFACTURERS' REPRESENTATIVES, now calling on store fixture dealers, WATO to set up dealers on the new SIR EATO automatic checkout counter. Several states still open. A new item with immediate acceptance. Write for back-ground U. S. STORE FIXTURE CO., 3519 St. Clair Ave., Cleveland 14, Ohio.

REFRIGERATION ENGINEER. Vilter, one of the oldest names in refrigeration, has an opening for an experienced young engineer with good background in calculations and with knowledge of refrigeration engineering in connection with larger type installations. Immediate placement in Application Engineering Department in Milwaukee; eventual chance to do selling. THE VILTER MFG. CO., Milwaukee 7, Wis.

SALES ENGINEERS—Experienced in air conditioning and refrigeration—for Westinghouse Electric Corporation. Air Conditioning Division, sales offices in Midwest. Reply stating full qualifications, experience and salary to BOX 2956, Air Conditioning & Refrigeration News.

SALESMEN—To sell wholesale complete line refrigeration parts and supplies. Leading lines of condensing units, blowers, motors, valves, Freon, and copper tubing. On commission basis. No ship anywhere in the U.S.A. BOX 3638, Air Conditioning & Refrigeration News.

ZONE SALES managers wanted. We will employ high caliber zone sales managers, one for Northwest territory, one for Virginia-Maryland-Delaware-North Carolina area. A well-established commercial refrigerator manufacturer with nationwide selling organization, our product is essential in every food market, hotel, restaurant, institution, etc., but you would be working with present distributors and appointing new ones. Our selling season is year around with peak sales just ahead. It's a good opportunity if you're not satisfied with progress you're making or have reached the top with present connection. Write us your qualifications and we'll tell you details of our offer. Address BOX 3947, Air Conditioning & Refrigeration News.

POSITION AVAILABLE. Man with sheet metal experience to design and build high and low temperature self-service display cabinets. New England area. Give record of past employment, references and salary required. BOX 2956, Air Conditioning & Refrigeration News.

JUNIOR PROJECT engineer—with some refrigeration background, to work on various problems connected with design and development of compressors and allied equipment. One must know of this opening. Write full resume to BOX 3960, Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

WANTED WATER coolers. Bottle or pressure type. Factory seconds or rejects. Also used coolers or cabinets of bottle type with compartments. Any condition. Please state make of cooler, model year, number available and price per cooler. Also new cabinets less motors and compressors. BOX 3956, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

NEW—1/2 and 1/4-hp. open type refrigerating units, air cooled. Price: 1/2 hp.—\$44.00; 1/4 hp.—\$102.00. These units are equipped with Chiefland compressor bodies and Century capacitor type motors with built-in thermal protection. Freight allowed on quantity orders of 10 units or

more, may be amortized also. Write for literature and specifications. ARCTIC-AIRE, 1621 Grand Ave., Kansas City, Mo.

1-BUFFALO forge type "CL" limit load Class 1, Size 7 fan (used), 8W81 arrangement, 3 counter-clockwise top discharge. Rated 20,432 CFM with 1500' OV. Previously used on ventilation service. In excellent condition, having original mill finish. Price \$325.00. Contact F. R. BELL, JR., P.O. Box 1266, Mobile, Ala.

REFRIGERATOR DOORS 36" by 66" double batten auto close doors complete with removable track heads for a 72" track. 1 1/2" cardboard insulation. 16 gauge metal clad. Brand new. \$86.00 each. Freight prepaid in U. S. Door height will be altered for anything up to 11 ft. 3 in. track for \$15.00 additional. BIMEL CO., Cincinnati, Ohio.

FOR SALE—60 ton cooling equipment as follows: with magnetic starters and automatic controls; 3 Frick 4 cylinder Freon Compressors 4 1/2 x 4 1/2 Model F.W.-440; 2 40 H.P.-208 volt-3 phase-60 cycle 1750 R.P.M. motors; 6 Aero fin coils, 4 pipes deep, 18 pipes high 8 1/2" x 36"; 1 80 ton Buffalo fan 36" x 43" delivery 20,000 C.F.M.; 2 new American coils model 2080. BOVAL REALTY CO., 513 28th Street, Union City, New Jersey.

WE HAVE available for immediate liquidation the following air conditioning equipment: 3-SCY #301, Ser. #9367 & #9368, 3 h.p., 220V, 3 ph., 60 cy., \$419.00 ea.; 3-SCY #307, Ser. #9704, #9705, & #9737, 3 h.p., 220V, 3 ph., 60 cy., \$957.00 ea.; 3-SCY #302, Ser. #9757, #9764, & #9759, 3 h.p., 208V, 3 ph., 60 cy., \$601.00 ea.; 6-21 Plemum for 3 h.p., \$33.00 ea.; 1-SCY #302, Ser. #9288, 5 h.p., 208V, 3 ph., 60 cy., \$600.00 ea.; 2-SCY #501, Ser. #9308 & #9305, 5 h.p., 220V, 3 ph., 60 cy., \$900.00 ea.; 1-SCY #504, Ser. #9459, 5 h.p., 3 ph., 60 cy., \$900.00 ea.; 1-SCY #557, Sealed Unit, Ser. #10057, 5 h.p., 220V, 1 ph., 60 cy., \$1,075.00 ea.; 4-21 Plemum for 5 h.p., \$30.00 ea.; 2-Condensing Unit, less motor 3 h.p., \$355.00 ea.; 1-PD-30 Air Conditioner 220/260, 3-ton, 37,000 BTU, \$735.00 ea.; 1-3FD-30 Air Conditioner, 3-ton, 37,000 BTU, \$735.00 ea.; 1-FA Section for AD32, \$24.00 ea.; 1-RS-65 Water Cooler, 1/4 h.p., \$169.50 ea. Prices are f.o.b. South Bend and offer is made subject to prior sale. BUILDICE COMPANY, INC., 2610 So. Shields Ave., Chicago 16, Illinois.

SAVE 1/2 on this heavy duty 180 ton cap. water chiller. Three Freon circuits. A.S.M.E. stamped, same as new. Will guarantee in perfect condition. Outright sale or will trade for commercial refrigeration equipment. GORDON LOZIER CORPORATION, 1612 California, Omaha, Nebraska.

452 BUYS standard brand 1/4-HP open type or sealed type complete units. Other sizes up to 3 HP. Write for complete listings on units and parts, including Kilson overload relays @ 1/2. MANN REFRIGERATION SUPPLY CO., 480 Lafayette Street, New York 3, N. Y.

FOR SALE—brand new 1/2 H.P. hermetic compressors. Model 8-88-8 1/2" high. Complete with relay and overload \$44.50. Send for your list on drives, valves, belts, pressure controls, fitting, relays, supplies and parts at great savings. Sold on money back guarantee. WALTER W. STARH, 2833 Lincoln Ave., Chicago 13, Illinois.

DISTRIBUTOR HAS overstock of following brand new crated equipment: Will sell f.o.b. Newark, N. J. one ELL sectional walk-in freezer, 12' x 12' x 6' with remote 1-1/2 hp unit \$1234.00 each net; one FR30 reach-in refrigerator 30 cu. ft. with 1/2 hp self-contained unit \$397.00 each net; one FR30 reach-in refrigerator 30 cu. ft. with 1/2 hp self-contained unit \$416.00 each net. All above items subject to prior sale. BOX 3954, Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

DEALER FRANCHISE available for complete line of Frigidaire appliances in one of the fastest growing cities in Midwest. City has population of 150,000. Immediate trading area 250,000. At present only two Frigidaire dealers. Want to add one more who will specialize in outside selling and servicing of appliances. Will require \$15,000.00 to \$20,000.00. Investigate this unusual opportunity and advise us of your business experience and capital. BOX 3961, Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

ESTABLISHED BUSINESS for sale. Distributor of nationally known commercial refrigeration, air conditioning and household appliances. Approximately \$40,000 inventory. Within 75 miles of Chicago, Ill. BOX 3957, Air Conditioning & Refrigeration News.

MISCELLANEOUS

NORGE SEALED units remanufactured or exchanged. Immediate delivery from stock. 1 year warranty. Write for price and shipping instructions. Genuine Norge terminals for Norge sealed units. Complete set of three \$15 plus postage. MODERN REFRIGERATION CO., INC., 12541 E. McNichols Road, Detroit 6,



ABOVE: Exterior of low-cost Dallas, Texas house with G-E air conditioning.



LEFT: Alcove where both the air conditioner and the furnace are located.

Air Conditioning for Low-Cost Housing--

(Concluded from Page 1, Column 4) tion, when neither cooling nor heating is required, the system may bring in fresh outside filtered air. Both the air conditioner and furnace are located in an enclosed alcove in the center of the Dallas home.

Operating costs of the year-round system in the Dallas project have been estimated at approximately \$93 a year for a normal cooling season, and about \$40 for a normal heating season. These costs would vary in other localities according to the length of the cooling and heating season as well as the utility rates in effect, it was noted.

Although the 210-house Dallas development employs gas-fired furnaces, oil-fired furnaces are equally adaptable for use with G-E's resi-

dential summer air conditioner.

Texas Distributors, Inc., G-E distributor in Dallas which furnished the equipment, was enthusiastic at the initial response of the visitors at the open house. Officials pointed out that very few homes in the United States have been air conditioned, largely because the public feared the system might be too expensive to put in and operate.

"This housing development proves conclusively that this isn't so," said John B. Lowe, president of the firm.

"It is not only economically practical to cool a small home, but climate studies reveal that from the standpoint of personal comfort and health, it is essential not only in Dallas but in most of the United States.

G-E Major Appliance Plans--

(Concluded from Page 1, Column 4)

Park project now under construction. Linder said that production facilities and equipment at Appliance Park would permit manufacture of many component parts now purchased. But he explained that the dollar value of materials and parts the company would have to buy would increase in total because the number of appliance units produced would increase substantially.

L. H. Miller, manager of marketing, said present plans for Appliance Park provide for an eventual production capacity of 6,240 appliance units every 8-hour shift.

Linder said that industry-wide sales of major appliances in 1951 approximated \$3 billion. He predicted that this figure would approach \$4½ billion annually by 1960 because of a growing consumer demand for many appliances now in low saturation.

"Production is off from last year because of short supply of some materials," he said. "Some of the appliances in low saturation, for which there is a growing consumer demand, are not presently in free supply.

"But we anticipate a relaxation of controls on materials which probably will result in a substantially more free supply in all product lines.

"There has been some evidence of unwarranted price cutting on certain items at the consumer level in the major appliance market with the ap-

parent intent of stimulating retail sales. But prices . . . are not high.

"Our studies indicate that there is no substantial consumer resistance to the major appliance price structure. Department of Labor statistics show that the wholesale prices of metals, metal products, clothing and household furnishings have risen 80 to 100% since 1940. Those of major appliances, however, have risen less than 60%.

"In my opinion the major appliance industry has been short sighted in its pricing policy during the post-war period. It appears that full cognizance was not given to rising material and labor costs in its price structure."

He said that General Electric had decided to concentrate its major appliance manufacturing in Louisville for three basic reasons:

"It is near the center of our major appliance distribution network. It has an adequate labor supply to meet our long-range needs. It has superior transportation facilities—water transport for sheet steel which we use in large quantities, and rail lines for shipment of finished appliances."

Linder said initial production of appliances is expected to begin late this year.

He said that by July 1 all the division sales, marketing, and other headquarters personnel will have been transferred from Bridgeport.

Fresh'nd-Aire Will Color Conditioner To Suit Buyer

CHICAGO — Fresh'nd-Aire Co., a division of Cory Corp., will offer a choice of color combinations to every purchaser of a Fresh'nd-Aire room air conditioner during a forthcoming spring promotion, it was announced by J. W. Alsdorf, president of the company.

The offer, to be made on a regional basis through Fresh'nd-Aire distributors, will enable the purchaser to obtain, at no increase in price, a furniture-styled air conditioner, individually painted to match his home's decor.

The Fresh'nd-Aire conditioner, a new product which rounds out the Fresh'nd-Aire line of air treatment equipment, is available in ½ and ¾-hp. capacities. It features directional air control, whereby the conditioned air can be channeled out the side, out the front, or out both sides and front together.

Metals Decontrol--

(Concluded from Page 1, Column 5) moved by the first or second quarter of next year. Only military projects will continue to get priority ratings. By that time, new supplies will be able to meet both civilian and military demands.

COPPER: No decontrol in sight. Copper for small arms ammunition is key to available supplies. "If fighting stops in Korea, we'll attain our ammunition objective very rapidly," Fleischmann said.

Other steps to boost copper production will have no material effect in the near future.

Price Controls--

(Concluded from Page 1, Column 4) week on proposed extension of the act, postponed them indefinitely.

In the Senate Committee a proposal submitted by Senator Dirksen of Illinois to end the controls on June 30 was voted down 10 to 3.

Two changes were voted by the Senate group in the Herlong amendment which requires OPS to grant wholesalers and retailers their customary pre-Korea percentage mark-ups.

One of the amendments would bring under the terms of the Herlong amendment sellers whose price ceilings were set before the Herlong provision was passed. The other change prohibits consideration of excise taxes in computing price ceilings under the Herlong provision.

Black Heads Commerce Dept.'s Detroit World Trade Office

DETROIT — Arch Black, veteran refrigeration man and formerly vice president of Borg-Warner International Corp., has been appointed business specialist with the U. S. Department of Commerce and will be Detroit head of its World Trade Div.

Construction--

(Concluded from Page 1, Column 2) mercial construction projects will be approved for allotment in the third and subsequent quarters, the agency said. Only entertainment and recreational type projects are being rejected for the third quarter, it was indicated.

EEL Conference Expects 1,000 Sales Executives March 31 to April 3

CHICAGO — Approximately 1,000 sales executives from all parts of the United States are expected to attend the 18th Annual Sales Conference of the Edison Electric Institute, according to Merrill E. Skinner, chairman of the Commercial Division General Committee. The conference will be held March 31 through April 3, 1952, at the Edgewater Beach hotel here.

The conference will offer a diversified program dealing both with specialized activities of sales forces and with broader industry problems of special concern to sales executives at three general sessions and four concurrent sectional meetings.

Speakers at the Wednesday morning (April 2) general session include Walter H. Sammis, president, Ohio Edison Co., and Jacob Baker of the Econometric Institute. Keen Johnson, vice president, Reynolds Metals Co.; William A. Lyons, vice president, New York State Electric & Gas Corp.; and Dwayne Orton, director of education, International Business Machines Corp., will speak at the Wednesday afternoon general session.

Speakers at the third general session are Fred B. Hout representing the National Association of Domestic Farm Pump Manufacturers; Dr. Howard A. Ruak, Institute for Physical Medicine & Rehabilitation; H. Thomas Halliwell, Jr., president, Standard Pressed Steel Co.; and Walter Johnson, secretary of American Airlines, Inc.

The conference will conclude with a luncheon meeting on Thursday.



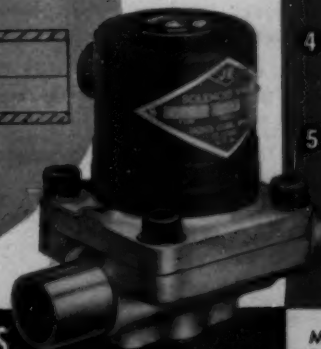
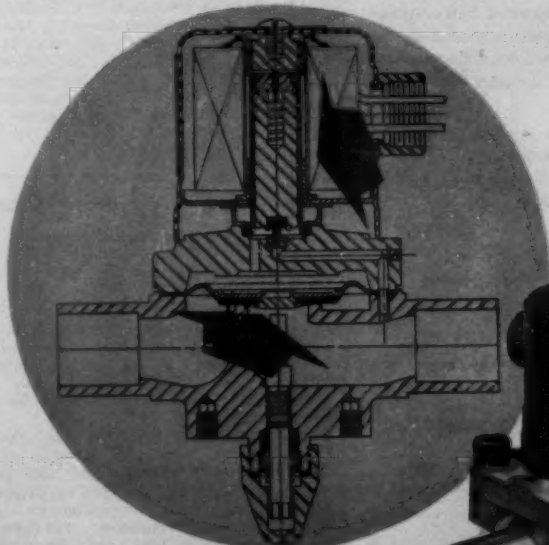
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